2015

Cultural Holidays and Equity Returns

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COLLEGE OF BUSINESS

CULTURAL HOLIDAYS AND EQUITY RETURNS

By

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A Dissertation submitted to the
Department of Finance
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

Degree Awarded:
Spring Semester, 2015

Kelley Bergsma defended this dissertation on February 26, 2015.
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I dedicate this dissertation to my parents,
Derk and Cheryl Bergsma,
whose faithful encouragement and love made this work possible.

ACKNOWLEDGMENTS

I would like to express my gratitude for the members of my dissertation committee: Danling Jiang, Don Autore, David Peterson, and Thomas Zuehlke. I have learned so much about financial research – from asset pricing to econometrics – from all of them. I really appreciate the time that Danling Jiang and Don Autore spent helping me to refine my research ideas. I could not have accomplished all that I have in the past four years without Danling Jiang's expert guidance and support. I deeply admire her work ethic, attention to detail, and enthusiasm about her research; by following her example, I have grown tremendously as a researcher. I would like to thank Don Autore for his practical wisdom, patience, and time spent proofreading many drafts. I am very grateful for David Peterson's encouragement throughout the PhD program. In addition, I would like to thank the chair of the Finance Department, William Christiansen, for his advice and assistance during my four outstanding years at Florida State University.

I would also like to acknowledge the helpful comments and suggestions from James Ang, Jaap Bos, Dan Bradley, Sinan Gokkaya, Suzanne Hannay, Paul Hanouna, David Hirshleifer, Gabriele Lepori, Marc Lipson, Meagan McCollum, Bill Megginson, Lingling Wang, Stefan Zeisberger, Thomas Zuehlke, and seminar participants at Florida State University, Ohio University, the 2012 Academy of Behavioral Finance & Economics Annual Meeting, the 2013 Financial Management Association Annual Meeting, the 2014 FMA European Doctoral Student Consortium, and the 2014 Florida Finance Conference.

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ABSTRACT

This dissertation studies the role of cultural holidays in equity pricing. In the first essay, we study individual stock returns in eleven major international markets that celebrate six cultural New Year holidays not on January 1st. Our results show that stock markets tend to outperform in days surrounding the cultural New Year. After controlling for firm characteristics, an average stock earns a one to two percentage point higher abnormal return in days surrounding the cultural New Year's day relative to other non-January times of the year. Our further evidence suggests that a positive holiday mood in conjunction with cash infusions prior to the cultural New Year produces elevated stock prices, particularly among the stocks most preferred and traded by individual investors.

In the second essay, we find that investors react more favorably to share repurchases, SEOs, acquisitions, and earnings announcements when the announcement is made immediately prior to or on a holiday (i.e. pre-holiday trading days). Corporate events that typically trigger stock price declines are associated with abnormal reactions that are 22 to 49 basis points less negative on pre-holiday trading days, and events that usually result in stock price increases are associated with reactions that are 14 to 78 basis points more positive on these days. The results are not explained by a pre-holiday up market, monthly investor sentiment, short selling, investor limited attention, or adverse selection of firm announcements. Using Gallup survey data, we provide evidence that people are happier and less worried immediately prior to holidays, suggesting that our findings could be explained by an optimistic pre-holiday investor mood. Our study contributes to the literature on the pre-holiday effect by providing novel evidence that investor anticipation of holidays elevates announcement reactions to corporate events.

CHAPTER ONE

INTRODUCTION

Holidays are woven into the fabric of culture and influence a myriad of behaviors from social customs to buying habits. In fact, holidays even impact investing decisions. As early as the 1930s, Fields (1934) observes that the Dow Jones Industrial Average tends to advance more than usual prior to holidays. Subsequent work thoroughly establishes this "pre-holiday effect" in which *aggregate* stock markets often outperform on trading days immediately prior to or on major holidays in the U.S. and internationally (Fields 1934; Lakonishok and Smidt 1988; Pettengill 1989; Ariel 1990; Frieder and Subrahmanyam 2004; Kim and Park 1994). Notably, Frieder and Subrahmanyam suggest that high market returns around holidays are driven by investor optimism, i.e. an uplifted holiday mood. This dissertation consists of two related essays that provide novel evidence on the impact of cultural holidays on equity returns.

The first essay examines individual stock returns surrounding cultural New Year holidays in eleven predominantly emerging markets. Specifically, we study cultural New Year holidays, such as the Chinese New Year and Jewish New Year, that do not fall on January 1st, but rather occur at different times of the year according to traditional (often lunar) calendars. Guided by the idea that people share a common sense of optimism that transcends cultures, we explore whether cultural New Year holidays are associated with a *similar* pricing effect across international equity markets. In contrast, prior work on culture and finance has primarily focused on how cultural differences lead to *different* effects in international financial markets. Moreover, our study is the first to investigate cross-sectional differences in the effect of distinct cultural holidays on *individual stocks* across multiple nations.

Specifically, we study equity performance in eleven major international stock markets from 1991 to 2011 surrounding six cultural New Year holidays—Chinese, Islamic, Jewish, Korean, Sinhalese, and Thai New Year holidays—and find that stock markets tend to outperform surrounding the cultural New Year. We further show that this cultural New Year effect is most pronounced among stocks with characteristics favored by individual investors such as low price, high idiosyncratic volatility, and high past extreme daily returns; and such a retail-investor-clientele effect is stronger among countries where employees receive bonuses at the turn of the cultural New Year. Our findings are not explained by tax loss selling or short selling, but instead

are most consistent with investor mood. In short, our evidence suggests that a shared optimistic mood around cultural New Year holidays leads to bullish investor sentiment, and cash infusions and the dominance of individual investors facilitates this process.

The second essay investigates whether domestic investors perceive corporate announcements differently if the announcements are made prior to U.S. holidays. Our main inquiry is whether abnormal stock price reactions (after controlling for aggregate market performance) differ between corporate announcements that are made during pre-holiday trading days – defined as the two trading days immediately prior to a major holiday and the holiday itself if the market is open that day – and corporate announcements made on ordinary trading days. In particular, we study several types of major corporate event announcements, including stock repurchases, seasoned equity offerings (SEOs), acquisitions, and quarterly earnings. Our key finding is that abnormal stock price reactions to these corporate announcements are significantly higher on pre-holiday trading days than on ordinary trading days after controlling for a host of firm characteristics, event characteristics, and seasonal factors, as well as industry fixed effects. We term this finding of abnormally high announcement reactions immediately prior to holidays as the "pre-holiday firm announcement effect." The results are not explained by a pre-holiday up market, monthly investor sentiment, short selling, investor limited attention, or adverse selection of firm announcements. Using Gallup survey data, we provide evidence that people are happier and less worried immediately prior to holidays, suggesting that our findings could be explained by an optimistic pre-holiday investor mood.

Overall, our novel results are consistent with the mood-based explanation for the aggregate pre-holiday effect proposed by Frieder and Subrahmanyam (2004).

CHAPTER TWO

CULTURAL NEW YEAR HOLIDAYS AND STOCK RETURNS AROUND THE WORLD

2.1 Introduction

Despite cultural differences that set people apart, there exist certain universal themes that bring people together. One such theme is a common sense of optimism at the beginning of a New Year. People throughout history have celebrated the hope of a happier tomorrow at the advent of the New Year. For the Western world, the New Year falls on January 1st, the beginning of the Gregorian calendar year; however, other cultures celebrate different New Years according to their traditional calendars. For example, China's New Year (Spring Festival) falls in January or February, Thailand's New Year (Songkran) falls in mid-April, and Israel's New Year (Rosh Hashanah) falls in September or October. While these cultural New Year holidays are celebrated with different traditions and at different times of the year, these New Year celebrations all share a common uplifting mood, and in many cases, individuals enjoy cash infusions—namely employee bonuses—prior to the cultural year-end.

We examine how this shared optimistic mood around cultural New Year holidays impacts stock markets worldwide and how cash infusions and the dominance of individual investors facilitate this process. Specifically, we study equity performance in eleven major international stock markets from 1991 to 2011 surrounding six cultural New Year holidays—Chinese, Islamic, Jewish, Korean, Sinhalese, and Thai New Year holidays—and find that stock markets tend to outperform surrounding the cultural New Year. We further show that this cultural New Year effect is most pronounced among stocks with characteristics favored by individual investors such as low price, high idiosyncratic volatility, and high past extreme daily returns; and such an individual investor clientele effect is stronger among countries where employees receive bonuses at the turn of the cultural New Year.

Our contribution is to show how a transcendent theme across cultures at different times of the year is associated with a *similar* pricing effect across international equity markets. In contrast, prior work on culture and finance has primarily focused on how cultural differences lead to *different* effects in international financial markets. For example, differences in religion explain variation in creditor rights across nations (Stulz and Williamson 2003); cultural differences lead

to differing impacts of social interaction on individual trading decisions (Ng and Wu 2010); and different levels of individualism among cultures affect herding behavior, trading volume, volatility, momentum, and corporate risk-taking (Beckman, Menkhoff, and Suto 2008; Chui, Titman, and Wei 2010; Li, Griffin, Yue, and Zhao 2013). In contrast, we posit that a similar optimistic mood around cultural New Year holidays will result in a similar positive effect on stock prices across different cultures.

Our study is related to prior literature on the investor mood effect, which largely focuses on mood changes prompted by exogenous shocks (sunshine, sports teams' performance, or aviation disasters) and documents that these mood changes influence aggregate stock market performance (Saunders 1993; Hirshleifer and Shumway 2003; Edmans, Garcia, and Norli 2007; Kaplanski and Levy 2010). Yet, these proxies for mood state are not known ex ante, making it difficult to exploit the direct effect of mood on security prices. In contrast, holidays as proxies for mood swings are predictable, as the dates of holidays are scheduled far in advance. Thus, the pricing effect of investor mood surrounding holidays is more likely to be exploitable.[1]

Another line of research, including Frieder and Subrahmanyam (2004), Bialkowski, Etebari, and Wisniewski (2012), and Kaplanski and Levy (2012), has recognized holidays as a proxy for investor mood. However, none of these studies examines different cultural holidays across multiple nations and the cross-sectional differences in the effect of holidays on *individual stocks*, both of which are our focus. For instance, Bialkowski, Etebari, and Wisniewski study aggregate stock market returns across different international markets for the single holy month of Ramadan and find a Ramadan effect only in countries that are predominantly Muslim. In contrast, we study distinct cultural New Year holidays across a set of major international markets with different religions and traditions, guided by the idea that optimism around the cultural New Year is common across cultures.

Moreover, our study provides a clean test of our hypotheses in that it is unclouded by tax loss selling or short selling. Unlike the January 1st New Year, many of these cultural New Year holidays do not fall on the same day or even the same month year after year in the Gregorian calendar. Thus, the cultural New Year does not usually coincide with the tax year; and even if it did, a majority of the markets in our sample do not impose a separate capital gains tax. Therefore,

[1] Fields (1934), Lakonishok and Smidt (1988), Ariel (1990), and Kim and Park (1994) find that stock markets on the trading days prior to major holidays exhibit abnormally high mean returns., but none of these studies link the holiday effect with investor mood.

our tests are not confounded by tax loss selling, a common explanation for the January effect (Reinganum 1983). Nor are our findings explained by the short selling activity as our results remain significant when we exclude countries that allow short selling (e.g., Fields 1934).

While the January effect in Western markets has been extensively studied, our study is the first to comprehensively examine stock market performance surrounding diverse cultural New Year holidays across significant international markets. The countries in our sample account for over 27% of the world's population and nearly 20% of the world's total market capitalization.[2] In our empirical tests, we uncover evidence that stock returns are significantly higher in days surrounding the cultural New Year relative to other trading days of the year outside of those surrounding January 1st.[3] At the aggregate level, the average daily country portfolio return is 21 basis points higher during the window (–4,+4) surrounding the cultural New Year's day as compared to daily returns during other days, after adjusting for world market risk and controlling for the January effect and country fixed effects (Table 2).[4] Further, this cultural New Year effect is present across most of our sample countries (Table 3) and is observed in both the earlier and later sample periods (Table 2).

In addition to testing at the aggregate country portfolio levels, we also test at the individual stock levels, an avenue rarely explored by prior work on holidays or mood. Using a rich panel of monthly firm-level characteristics and returns, we show that the cultural New Year effect remains economically and statistically significant in a majority of our sample countries after controlling for the January effect and the firm characteristics of market capitalization, book-to-market ratio, short-run past return, momentum, and illiquidity. The monthly abnormal stock return is on average 2.50% higher in the cultural New Year month, the month in which a majority of the (–4,+4) window around the cultural New Year's day falls, as compared with other months (Table 4).

To provide further evidence that the cultural New Year effect is induced by investor mood swings surrounding the cultural New Year, we study whether a certain subset of individual stocks experience a stronger impact from the cultural New Year. We hypothesize that individual investors are more subject to the influence of mood and therefore expect a stronger mood effect on the subset

[2] The population statistics are from the CIA *World Factbook* (2013) and total market capitalization is from the most recently available U.S. Census International Statistics (2010).
[3] We control for January as the January effect is present in many countries in our sample.
[4] The world market risk-adjusted return is defined as the unexpected return relative to a world-market model, where the world market is the Datastream world market index.

of stocks that individual investors tend to trade.[5] Specifically, we identify stocks with an individual investor clientele using a composite individual investor clientele index that incorporates three stock features: low stock price, high firm-specific volatility, and high past extreme daily return (e.g., Kumar 2009; Bali, Cakici, and Whitelaw 2011). Using panel regressions that control for firm characteristics, we show that stocks with an individual investor clientele significantly outperform their counterpart traded in the same country during the cultural New Year month.[6] Further corroborating evidence shows that stocks in countries with a lower concentration of institutional ownership exhibit a stronger cultural New Year effect. Collectively, this evidence suggests that investor mood affects stock prices through the channel of individual investors' trading.

Finally, we show that cash infusions, in the form of employee bonuses distributed at the cultural year-end, contribute to the influence of investor holiday mood on stock prices. Upon a positive cash infusion, investors under an optimistic holiday mood are more likely to favor equity over bonds because optimism induces greater risk-taking (Forgas 1995). In the presence of borrowing constraints, stock investment is made possible by a cash infusion. Consistent with this hypothesis, for the subset of markets where investors experience a cash infusion prior to the cultural New Year holiday, the abnormal returns around the cultural New Year remain significantly more pronounced for individual investor clientele stocks (Table 6). However, for the remaining subset of markets, this cultural New Year effect dissipates and stocks with an individual investor clientele experience significantly lower, not higher, returns surrounding the cultural New Year (Table 6).

The remainder of the paper is organized as follows: Section I provides the motivation and hypotheses. The data set is outlined in Section II, while Section III discusses the empirical results. Section IV presents tests of alternative hypotheses. Section V concludes.

2.2 Motivation and Hypotheses

In our increasingly global marketplace, current financial research strives to look beyond traditional Western markets to emerging markets in other parts of the world (e.g. Rouwenhorst 1999; Hou, Karolyi, and Kho 2011). Several studies examine how diverse cultures have differing

[5] Individual investors are shown to be less sophisticated on average than institutional investors (e.g., Grinblatt and Keloharju 2001).

[6] Our evidence is also consistent with a gambling preference explanation (Doran, Jiang, and Peterson 2012); however, since optimism promotes greater risk-taking, we view gambling preference as complementary to our mood-based hypothesis.

impacts on these international markets. Stulz and Williamson (2003) examine emerging markets among the 49 countries in their study and investigate the impact of culture measured by religion and other proxies on creditor rights. Chui, Titman, and Wei (2010) consider how culture impacts returns to momentum strategies and show evidence that individualism is positively associated with trading volume, volatility, and momentum profits. Eun, Wang, and Xiao (2014) contrast the stock price synchronicity of collectivist culture nations with that of individualistic culture nations. Ng and Wu (2010) show that individual trading decisions in China are influenced by social interactions with peers located in a much more narrowly defined geographic proximity (same brokerage branch) than what is commonly found in the U.S.

Nevertheless, as much as nations may differ in religion, individualism, or other cultural dimensions, people across the globe share similarities. For instance, Hirshleifer and Shumway (2003) find that the presence of morning sunshine at a country's leading stock exchange is associated with higher returns that day for 26 countries over a 16 year period. Hirshleifer and Shumway attribute their findings to the common propensity of sunshine to improve mood.

In the same way, our paper explores how a shared sense of optimism around a New Year holiday has a similar positive impact on stock returns across culturally diverse markets around the world. Our test represents a greater challenge than prior work on the cultural holiday effect, which almost exclusively focuses on a single New Year holiday in one or multiple markets. For example, many studies document a January effect around the Gregorian New Year in the U.S. (e.g., Keim 1983; Thaler 1987; among others) or in other countries that celebrate the January 1st New Year (Brown, Keim, Kleidon, and Marsh 1983; Berges, McConnell, and Schlarbaum 1984; Kato and Schallheim 1985). Others focus on isolated cultural New Years in a few countries, such as the Jewish New Year in the U.S. and Israel (Frieder and Subrahmanyam 2004) and the Chinese New Year in countries with large ethnic Chinese populations (Yen, Lee, Chen, and Lin 2001; Tong 1992; Chan, Khanthavit, and Thomas 1996). Furthermore, all of these studies solely consider aggregate market returns, while we examine individual stock returns across eleven markets that celebrate six different cultural New Year holidays for the more recent period of 1991–2011.

Our study is also related to the broader literature on the impact of optimism on financial decision-making. Dowling and Lucey (2005) find that mood states have a significant effect on the pricing of Irish equities, with the strongest effect occurring when people are in a positive mood.

Using a sample of Dutch individuals, Kaplanski, Levy, Veld, and Veld-Merkoulova (2014) find that people in an optimistic mood expect higher future stock market performance and exhibit a higher demand for stocks in the Dutch and American stock markets. Karabulut (2013) finds that Facebook's Gross National Happiness (GNH) index is a positive predictor of stock market returns next day in the U.S. market. This evidence is consistent with Forgas' (1995) affect infusion model (AIM), which states that people in a happier mood rely more on heuristic processes that foster greater risk-taking.[7] As such, because people are generally in an optimistic mood around a cultural New Year holiday, we expect individuals to exhibit a greater demand for risky assets during this time. This motivates our first hypothesis:

H1: In countries that celebrate a cultural New Year holiday not on January 1st, stock returns are higher around the cultural New Year than in other times of the year outside of January.

Moreover, while optimistic investors may have a higher demand for stocks, in the presence of borrowing constraints, they are limited in their capacity to invest in stocks. If individuals receive employee bonuses prior to their cultural New Year, however, they then have the cash to make an additional investment in equity. In many of our sample countries, employee bonuses can be as large as an entire month's salary or more. Furthermore, psychology literature documents that employee bonuses are likely to be evaluated in a different mental account than ordinary income (Thaler 1985) in that bonuses are perceived as house money (Thaler and Johnson 1990) or a windfall gain (Arkes et al. 1994). Thus, in a setting with borrowing constraints especially as one might see in frontier and emerging markets, cash infusion is the mechanism that allows investors to act on their positive outlook for the stock market. Tong (1992) and Chen and Chien (2011) suggest that the employee bonus cash infusion prompts the Taiwanese market run-up prior to the Chinese New Year. Similarly and more broadly, we expect that in countries where individuals receive employee bonuses prior to the cultural New Year, people will exhibit a stronger appetite for equities. This motivates our second hypothesis:

H2: Markets that experience cash infusions in the form of employee bonuses will exhibit a stronger cultural New Year effect.

[7] Lepori (2010) reports that greater weekend comedy movie attendance is associated with stock market declines on the subsequent Monday. He suggests that happy mood of investors can lead to less risk-taking and thus lower market prices. Our evidence based on the cultural New Year is, however, more consistent with the idea that positive mood promotes greater risk taking.

We do not view our cash infusion based Hypothesis 2 as competing against our investor mood based Hypothesis 1. Rather, we view the two as complementary with the positive investor mood serving as a necessary condition. The availability of cash only facilitates, rather than causes, the translation of positive investor mood into higher stock prices. Although people tend to be more willing to risk house money or windfall gains as compared with ordinary income, they are also equally likely to use this money for consumption (Arkes et al. 1994; Milkman and Beshears 2009). Therefore, in the decision of choosing investing over consumption, stock market optimism is a necessary condition.

Lastly, since ordinary people receive employee bonuses prior to the New Year and are also more subject to the influence of mood, we posit that ordinary people, i.e. individual investors, are more responsible for the elevated stock returns around the cultural New Year. Specifically, we expect stocks more closely held or actively traded by individual investors to exhibit a stronger cultural New Year effect, because individual investor sentiment is mostly likely to impact prices at the margin among those stocks.[8] We consider three stock attributes that attract individual investors: low price, high firm-specific volatility, and prior high extreme returns. Kumar (2009) finds that individual investors prefer stocks with lottery-like features, such as low price and high firm-specific volatility, and individual investors typically overpay for these stocks. Bali, Cakici, and Whitelaw (2011) find that individual investors prefer stocks with prior high extreme daily returns in addition to the lottery-like features defined by Kumar. Thus, we conjecture that stocks with low price, high firm-specific volatility, and high past extreme daily returns are more likely to be held and traded by individual investors. This leads us to formulate the third hypothesis:

H3: Stocks with attributes preferred by individual investors on average have higher returns than other stocks around the cultural New Year. This effect is stronger in markets that experience cash infusions.

We test these three hypotheses using country portfolio daily abnormal returns as well as monthly abnormal returns on the entire cross section of individual stocks from eleven major international markets.

[8] For instance, Chen and Chien (2011) find that investors bid up low price, high volatility stocks when they receive bonuses.

2.3 Data and Variables

2.3.1 Data sources

All financial data are gathered from the Datastream and include individual stock returns, prices, market values, and book values. Following Edmans, Garcia, and Norli (2007), we use data in local currency to test our hypothesis from the perspective of a local investor.

Since we seek to study cultural New Years that are different from the Gregorian calendar New Year (January 1st), we start by collecting all of the countries that have a cultural New Year holiday that is not January 1st. To confirm that a majority of the population celebrates the cultural New Year holiday, we include only countries where the cultural New Year is traditionally celebrated by a cultural/religious group that makes up at least 60% of the population, as determined by the countries' cultural/religious groups reported in the CIA *World Factbook* (2013).[9] Next, we ensure that each country in our sample has substantial data coverage of individual securities by including only countries for which Datastream provides a total market index.[10] Lastly, our goal is to have a sample with sufficient time-series and cross-sectional information for a number of countries. Thus, we stipulate that each country's data must extend back to at least 1995. We chose 1995 because it is the year when data were available for a number of countries with sizable stock markets. As we use the prior year's returns to estimate the world market beta and calculate abnormal returns, we lose one year data for each country, leaving the start date for our sample ranging from 1991 to 1996 depending on the country.[11] Our sample ends in December 2011 for all countries.

The above criteria result in eleven countries that celebrate six cultural New Year holidays: the Chinese, Islamic, Jewish, Korean, Sinhalese, and Thai New Year holidays. We report the associated calendar time of the cultural New Year of each country in Table 1 Panel B. The Chinese New Year typically falls in January or February according to the Chinese lunar calendar. Associated with a festive mood, people often celebrate the Chinese New Year by hosting banquets for family and friends and participating in dances and parades. The Islamic New Year begins on

[9] For brevity, we refer to all markets as "countries" even though all markets do not represent independent sovereign states. If the country has a population that is predominantly Muslim, this country must practice Sharia law in at least one of its provinces. This stipulation helps ensure that Islam is such an important part of the culture that the population is sufficiently aware of the start of the Islamic New Year. This restriction excludes Turkey from our analysis. Our full-sample results are similar if we include Turkey.

[10] In general, countries with a Datastream total market index have better data coverage at the individual stock level in Datastream. This restriction excludes Bahrain, Egypt, Jordan, Kuwait, Morocco, Oman, Saudi Arabia, Tunisia, and Qatar from our analysis.

[11] We chose 1991 as the start date because there were a very limited number of stocks trading every day on emerging markets prior to 1990.

the first day of Muharram, the first month in the Islamic calendar. Since the Islamic year is 354 days, the first day of Muharram will fall in different months of the Western calendar depending on the year. It is forbidden to fight during the month of Muharram, so the first day of Muharram marks the start of a peaceful period. Rosh Hashanah, the Jewish New Year, occurs in September or October according to the Jewish lunar calendar. Rosh Hashanah is a time of renewed hope. The Korean New Year, Seollal, coincides with the Chinese New Year and is typically celebrated by eating traditional Korean meals with relatives. The Sinhalese New Year typically falls between April 13 and 15 according to astrological calculations. A majority of Sri Lankans participate in special New Year rituals and festivals on this day. The Sinhalese New Year is similar to the Thai New Year, which always falls on April 13 every year. The Thai New Year, Songkran, is celebrated with joyous processions, parades, and water festivals. The cultural New Year dates are collected from www.timeanddate.com with the exception of Sri Lanka.[12]

The above six cultural New Year holidays are celebrated in eleven countries that meet our sample selection criteria. As presented in Table 1 Panel A, the eleven countries are inhabited by 27.90% of the world's population or nearly 2 billion people according to the 2013 CIA *World Factbook* estimates. The combined total market capitalization makes up 19.54% of the total world market capitalization according to the U.S. Census Bureau's International Statistics (2010). Table 1 Panel A also reports the GDP per capita across countries for comparison. Panel B provides information regarding the cultural New Year holiday and data available for each country. Since several countries follow their traditional (often lunar) calendars to determine their New Year, the cultural New Year falls on different days or even different months depending on the year.

Prior literature suggests that Datastream has data integrity issues, so we screen the data according to Lee (2011) and Karolyi, Lee, and van Dijk (2012). Specifically, to be included in our sample, we require the security to be traded on the country's major exchanges and we exclude real estate investment trusts, global depository receipts, and preferred stocks. In the early years of emerging and frontier markets, stale exchange data is a problem in Datastream. For instance, if Datastream does not have a value for a certain month, it uses last month's value. To mitigate this problem, if the total return index is unchanged for three months in a row, returns from those months are set to missing. When more than 90% of stocks have a daily return equal to zero for a given

[12] Other sources confirm that the Sinhalese New Year typically begins on April 13, which tracks the Thai New Year. http://www.123newyear.com/newyear-traditions/sinhala.html. Information on cultural practices associated with each cultural New Year holiday was gathered from various Internet sources.

country, we define that day as a non-trading day. We also exclude a stock if the number of zero-return days is more than 80% in a given month. To minimize the effect of outliers, all independent variables in our regressions are winsorized at the 0.5% and 99.5% levels.

Next, we calculate the beta for each stock using the past year's twelve monthly returns regressed on the monthly returns of the Datastream world market index. We determine each stock's world market-adjusted returns using the market model (i.e. abnormal returns). Further, at the daily level, we define the country portfolio abnormal returns as the value-weighted portfolio of individual stocks from a given country in our sample. Thus, we have one observation per country per day, or 50,436 country portfolio daily observations from our overall sample of 20,199,778 firm-day observations. At the monthly level, our focus is on individual stocks rather than country portfolios, and our data consist of 1,108,844 firm-month observations with 9,085 unique firms from the eleven markets.

2.3.2 Variables

To study daily returns around the cultural New Year's day, we define a cultural New Year's day window dummy variable (*CNY days*) that equals to one if the trading day falls into the cultural New Year's day (–4,+4) trading day window, where day 0 is the New Year's day. Tong (1992) uses a (–5,+5) window to study the Chinese New Year's impact on stock returns; however, in the Israeli market, the (–5,+5) window captures the additional holiday of Yom Kippur in some years, so we shorten the window by one day in order to provide a cleaner test. Yom Kippur is a solemn holiday that occurs 9 days after the Jewish New Year, and Kaplanski and Levy (2012) show significantly negative abnormal returns around Yom Kippur in the Israeli market. Thus, the (–4,+4) window allows us to capture the cultural New Year effect without contamination from the other cultural holidays. For robustness, we explore alternative definitions of the *CNY days* window in Table 2, including (–3,+3), (–5,+5), (–7,+7), and (–9,+9). As many countries close their markets for a number of days after the cultural New Year's day, our definition of the cultural New Year window is designed to include a number of trading days before and after the New Year's day, during which we expect investors' mood to have a strong influence on stock prices.

To capture the January effect, we define a January 1st dummy variable (*JNY days*) as equal to one for trading days during the (–9,+9) window following Ritter (1988), where day 0 is January 1st. The January effect of the Western calendar has been identified in some international markets

that have a cultural New Year other than January 1st, e.g. Hong Kong (Gultekin and Gultekin 1983). Thus, we expect to observe a stock market outperformance around January 1st for our sample countries and view the January 1st dummy variable a necessary control.

When studying monthly individual stock returns, we define a cultural New Year *month* dummy (*CNY*) as equal to one if the majority of trading days in the New Year window (–4,+4) falls in that particular month for that country in a given year. We also define a *January* dummy as equal to one for the month of January. Out of the 219 individual country New Year holidays in our sample, only 47 of the cultural New Year months coincide with January. In unreported tests, we also try alternative definitions of the cultural New Year month dummies and find similar results.[13] In order to explore the influence of individual investor clientele on the cultural New Year effect, we define an individual investor clientele variable (*IndCltRank*) that encompasses the rankings of three individual investor clientele proxies drawn from prior literature: high idiosyncratic volatility, low prices, and high maximum daily returns (Kumar 2009; Bali, Cakici, and Whitelaw 2011). We measure idiosyncratic volatility (*Ivol*) using the standard deviation of the residuals from regressions of the previous month's daily returns on the world market's returns. Price (*Prc*) is measured by the end-of-month closing price of the prior month, and the maximum daily return (*Max*) is the maximum daily return of the prior month.

Rather than using the raw measures of *Ivol*, *Prc*, and *Max*, we use country-specific ranking measures of each variable to account for the heterogeneity in the levels across countries. The ranking variables are constructed monthly by sorting stocks from the same country into 20 groups based on *Ivol*, *Prc*, and *Max*. Stocks in the lowest group of *Ivol* and *Max* and the highest group of *Prc* are assigned a rank of zero while stocks in the highest group of *Ivol* and *Max* and the lowest group of *Prc* are assigned a rank of 19. The average of the three rankings is denoted *IndClt*. Then we sort stocks into 20 groups based on *IndClt*. Stocks with the highest *IndClt* measure are assigned the highest rank (*IndCltRank* =19) and are the most attractive to individual investors. Stocks with the lowest *IndClt* measure are assigned the lowest rank (*IndCltRank* = 0) and are the least attractive to individual investors. Thus, this composite individual clientele rank index (*IndCltRank*) summarizes the commonality among the three measures and helps to make comparisons among stocks from the same country.

[13] The alternative definitions of the cultural New Year month include defining a month as a *CNY* month if the New Year's day falls in the first 19 calendar days of that month or if the majority of the *CNY* days window (–5,+5) falls in that particular month for that country in a given year.

Lastly, control variables at the firm-level include market capitalization, the book-to-market equity ratio, short-run past return, momentum, and illiquidity. Market value (*MV*) is the closing price per share multiplied by shares outstanding of the preceding month. The book-to-market (*B/M*) ratio is reported in Datastream as the inverse of the market value of common equity divided by its book value as of the preceding month. Rather than using the raw measures of *MV* and *B/M*, we use country-specific ranking measures of *B/M* and *MV* to control for the heterogeneity in the levels of these variables across countries and across time. The ranking variables are constructed as follows: Each month, stocks from the same country are ranked into 20 groups based on *MV* or *B/M* from lowest to highest.[14] We denote these country-specific monthly ranking variables as *MVRank* and *B/MRank* respectively. Moreover, *LagRet* is the monthly return of the previous month and is intended to capture the short-term reversal effect. *Momentum* is the compounded return of month $t - 12$ through $t - 2$. We use the zero proportion measure (*ZeroProp*) proposed by Lesmond, Ogden, and Trzcinka (1999) to proxy for illiquidity. This measure is first applied to the individual stock level by Lee (2011). *ZeroProp* is defined as the proportion of trading days with returns equal to exactly zero in the prior month. Lesmond et al. suggest that a daily return of exactly zero is likely to mean that the stock did not trade that day and infrequent trading represents illiquidity. Key variable definitions are provided in the Data Appendix.

2.4 Empirical Results

To test our hypotheses, we study the patterns of both country portfolio daily abnormal returns and individual stock monthly abnormal returns.

2.4.1 Country portfolio comparison

We start the test of Hypothesis 1 using simple sorts of country portfolio daily abnormal returns. To calculate abnormal returns, we use the world market model where the world market is proxied by the Datastream world market index and estimate the world market beta using the monthly returns of the preceding year. Hypothesis 1 predicts that the average daily abnormal return in the cultural New Year window will be higher than other trading days outside January. Thus, for each country and each year, we calculate the mean daily country portfolio abnormal returns during

[14] We use ranking variables because our All Markets regression specifications pool all countries' data together and different countries' data is in different currencies.

the (–4,+4) trading day window surrounding the cultural New Year (*CNY days*) and the mean daily returns of all other trading days excluding the (–9,+9) trading window surrounding January 1st (*Other days*). The January 1st window is excluded in this analysis to avoid the estimated mean returns in other trading days inflated by the January effect. We verify the existence of the January effect in our sample countries later in this section. Thus, for each year and for each country, we have mean daily abnormal returns for *CNY days* and *Other days* respectively.

Figure 1 plots the mean daily abnormal returns of the two windows for each country (Figure 1A) and for each year (Figure 1B) during sample period. Across all countries except Pakistan, Figure 1A shows that average country portfolio daily abnormal returns are higher in trading days (–4,+4) surrounding the cultural New Year as compared with those on other trading days. Across all markets and years, the mean daily abnormal return of the country portfolios surrounding the cultural New Year is on average 0.23% higher than other trading days, and this paired difference in means has a *t*-statistic of 5.43 (*p*-value < 0.01) based on the bootstrapped procedure of 1,000 draws with replacement. In untabulated tests, we find that the average daily returns of equal-weighted country portfolios show similar patterns.

In Figure 1B, we plot the mean daily abnormal returns of the country portfolios during the (–4,+4) days surrounding the cultural New Year versus other trading days by year. The purpose is to examine whether the New Year effect is concentrated in certain time periods. We find that the country portfolios on average outperform during the cultural New Year's day window in sixteen years and underperform in five years. The underperforming years are present during both the earlier and the latter half of our sample period. In other words, we find that the cultural New Year effect applies to a majority of the sample years and there are no obvious signs of a weakening effect in recent time period.

2.4.2 Country portfolio level tests

In our analysis in Figure 1 based on simple sorts, we have excluded the January 1st window to make the comparison between returns in the cultural New Year window versus returns in other trading days. Next, we turn to a panel regression framework to test the statistical significance of the cultural New Year effect while explicitly controlling for the January effect and country fixed effects. Our panel regressions use the daily abnormal returns (*AR*) of the country portfolios as the dependent variable. Our specification is:

$$AR_{i,t} = \beta_1 \, CNY\ days + \beta_2 \, JNY\ days + Country\ fixed\ effects + \varepsilon_{i,t} \quad (2.1)$$

The key independent variable is the cultural New Year's day window dummy variable (*CNY days*), which is set as one for trading days that fall within the given trading day window surrounding the New Year's day for that particular country. We focus on the (–4,+4) window in order to avoid including other holidays, but we also report the results for the (–3,+3), (–5,+5), (–7,+7), and (–9,+9) trading day windows to demonstrate that our results are not driven by our window specification. The *JNY days* dummy variable equals one if the trading day falls within the (–9,+9) trading window (Ritter 1988). In addition, to explore whether the cultural New Year effect is driven by the pre-New Year period or the post-New Year period, we include a specification with *PreCNY days* and *PostCNY days* dummy variables (to replace *CNY days*) where each captures the days before and after the cultural New Year, respectively:

$$AR_{i,t} = \beta_1 \, PreCNY\ days + \beta_2 \, PostCNY\ days + \beta_3 \, JNY\ days + Country\ fixed\ effects + \varepsilon_{i,t} \quad (2.2)$$

In all regressions, we include country fixed effects to account for heterogeneity in equity premiums across countries and cluster the standard errors by date to account for cross-correlation in calendar time.

As reported in Table 2 Panel A, for all five cultural New Year windows, the estimated coefficient on *CNY days* is positive and statistically significant at the 5% level or better. The point estimates suggest that an average country portfolio earns 21 basis points more per day during the *CNY days* (–4,+4) window, in line with our estimates in Figure 1 based on simple sorts. The *JNY days* dummy variable carries a coefficient of 9 basis points throughout all regressions. In general, for the relatively short trading day windows (–3,+3), (–4,+4), and (–5,+5), the *CNY days* estimate is at least twice the coefficient estimate of the *JNY days* dummy variable. For the relatively long trading day windows (–7,+7) and (–9,+9), however, the two dummy variable estimates are roughly the same size. The patterns suggest that at the aggregate market level, the cultural New Year effect is at least as economically and statistically significant as the January turn-of-the-year effect.

We choose the (–4,+4) trading day window for our main tests to be consistent with Tong (1992) who uses a (–5,+5) trading day window, but we shorten our window by one day to avoid including other non-New Year holidays. Moreover, our results show that the cultural New Year effect is strong both before and after the cultural New Year: When we replace the *CNY days*

dummy with the *PreCNY days* and *PostCNY days* dummy variables, both carry positive coefficients across all event windows and these coefficients are statistically significant across all but one specification. In general, the economic magnitude of the *PreCNY days* coefficient is greater than the *PostCNY days* coefficient for shorter event windows but smaller than the *PostCNY days* coefficient for longer event windows, suggesting that the cultural New Year effect is the strongest in immediate anticipation of the holiday.

In Panel B of Table 2, we verify that the cultural New Year effect remains robust in the earlier and later halves of the sample based on the main cultural New Year window (–4,+4). Our findings corroborate our observations from Figure 1B by demonstrating a strong cultural New Year effect in both the earlier (1991-2001) and later time periods (2002-2011). There is evidence that the pre-CNY effect is stronger but the post-CNY effect is weaker in the earlier period. After 2001, both pre- and post-CNY effects are strong. In specifications (3) and (6), we include only the *PreCNY days* and *CNY days* dummies, where the *PreCNY days* coefficient picks up any statistical difference between the *PreCNY days* and *PostCNY days* coefficients. In the earlier period, the positive statistically significant coefficient on *PreCNY days* indicates that the pre-CNY effect is statistically stronger than the post-CNY effect; however, there is no statistical difference between the two effects in the later period. In an unreported test, we find no statistical difference between the pre-CNY effect and post-CNY effect during the entire sample period (1991-2011). Overall, our examination of country portfolio daily return regressions demonstrates a robust cultural New Year effect, supporting Hypothesis 1.

After establishing that the pooled sample of eleven markets shows positive abnormal returns around the cultural New Year holiday, we next examine whether the cultural New Year effect holds in each market alone with additional controls for the year fixed effects and the day of the week effects.[15] Our individual country regression specification is as follows:

$$AR_{i,t} = \beta_1 CNY\ days + \beta_2 JNY\ days + Year\ fixed\ effects + Day\ of\ the\ week\ effects + \varepsilon_t \quad (2.3)$$

The dependent variable is the daily country portfolio abnormal return. Including year fixed effects and the day of the week effects forces the *CNY days* dummy to pick up the return difference between the *CNY days* and other days outside of the *JNY days* within the same year that is not

[15] Israeli market trades on Sunday and not on Friday, so the day of the week variables included are adjusted accordingly.

attributed to the day of the week effects. In other words, the magnitude of the *CNY days* dummy variable represents the incremental returns earned surrounding the cultural New Year after correcting for the differing average returns across different years and different days of the week.

Table 3 reports the regression estimates. We find that a subset of countries show statistically significant *CNY days* coefficients, including China, Hong Kong, Singapore, South Korea, Sri Lanka, Taiwan, and Thailand. The *CNY days* coefficient is economically large, ranging from 17 bps in Thailand to 52 bps in China, or a 1.36 to 4.16 percentage points increase in country portfolio abnormal returns over the 8-day window. Referring back to Table 1 and as reported in the last row of Table 3 Panel A, in six out of the seven countries, employees are paid a bonus prior to the cultural New Year holiday. Therefore, after adjusting for world market risk, six out of the seven markets that experience a cash infusion exhibit a statistically significant cultural New Year effect. In contrast, only one of the markets (Thailand) where employees are not paid New Year bonuses shows a significant cultural New Year effect.[16] This evidence provides preliminary support to Hypothesis 2.

While Panel A establishes that the cultural New Year effect is not driven by the day of the week effect, it is possible that this effect could be caused by a holiday trading break as most markets are closed during the cultural New Year holiday. For instance, there could be liquidity or other market microstructure reasons caused by trading breaks that generate the higher return surrounding the cultural New Year holidays. However, Pettengill (1989) and Ariel (1990) demonstrate that the broader pre-holiday effect is not caused by holiday market closings. Also, we observe higher average returns both pre- and post-New Year, suggesting that systematic shifts from closing at the bid to closing at the ask prior to the New Year's day is unlikely to be the cause (e.g. Keim and Stambaugh 1984; Ariel 1990). Nevertheless, we address this concern by including a dummy variable capturing the (–4,+4) trading window around alternative solemn holidays that are associated with a less positive, and sometimes negative, mood (*Solemn holidays*).

To determine solemn holidays, we first turn to prior literature. In Israel, Yom Kippur is a solemn day of fasting and repentance and marks the anniversary of a 1973 war (Kaplanski and Levy 2012). In Islamic markets (Indonesia, Malaysia, and Pakistan), the Day of Ashoura is

[16] Note that this finding is not solely a Chinese New Year effect as Koreans and Sri Lankans are also paid employee bonuses prior to their cultural New Year holiday. Further investigation regarding Thailand reveals that while employees do not receive bonuses, many tourists visit Thailand during the Thai New Year (Songkran) to participate in water festivals. Since increased tourism brings in more revenue for many local Thai businesses, it is possible that Thais also experience a cash infusion of sorts around Songkran.

accompanied by a negative mood (Al-Ississ 2010). In the absence of prior literature on the remaining markets, we determine solemn holidays by considering memorial days for the deceased which are official holidays resulting in holiday market closings for at least one market. South Korea's Memorial Day for members of the armed forces falls on June 6 every year. Thailand's Chulalongkorn Day honors the passing of King Chulalongkorn. In Chinese culture, there are three holidays honoring the deceased, but only one of them is an official holiday in all four markets that celebrate the Chinese New Year. Qingming (Tomb Sweeping day) is a traditional Chinese holiday when people sweep the tombs of ancestors to commemorate them. These memorial days may or may not be associated with practices that explicitly dampen mood, but at least they are not associated with cheerful celebration. A caveat is that most of these memorial days are associated with a day off work, which alleviates stress and can possibly encourage more or less positive mood. Sri Lanka does not have an unhappy holiday that fits our criteria. Six of the markets are closed during their respective solemn holidays: China, Israel, Pakistan, South Korea, Taiwan, and Thailand.

Table 3 Panel B presents the analysis by including the *Solemn holidays* variable to our specifications in Panel A. The regression estimates show that the *Solemn holidays* coefficient has mixed signs and significance. In four out of six markets with trading breaks, the coefficient is positive and significant or marginally significant. In the remaining markets without trading breaks, the coefficient is not significant in any market. Furthermore, in countries with *Solemn holidays* that are associated with distinctly negative moods (Yom Kippur or the Day of Ashoura), the coefficient tends to be negative but insignificant, except in Pakistan where it is positive and significant. While Kaplanski and Levy (2012) find a negative significant effect resulting from Yom Kippur, they use a shorter trading window as they show that the negative effect is concentrated in the two trading days after Yom Kippur.

More importantly, the *Solemn holidays* coefficient is between 21% to 58% smaller in economic magnitude than the *CNY days* coefficient for all markets except Pakistan. This evidence suggests that the cultural New Year effect is not solely due to non-weekend trading break effect because the cultural New Year holiday (associated with a good mood) has a greater impact on

financial markets than an alternative holiday (associated with a less positive or a negative mood) when there is a holiday market closing.[17]

Taken together, at the aggregate level, we observe a significant cultural New Year effect by combining all markets. For individual markets, this cultural New Year effect is strong in markets with New Year cash infusions and is robust to the controls for year fixed effects and the day of the week effect.

2.4.3 Individual stock level tests: The cultural New Year effect

Turning to the tests at the individual stock level, we examine whether the cultural New Year effect could be driven by changing firm characteristics before the cultural New Year. Unlike country-level analyses, stock-level tests allow us to explore the rich information in the entire cross section of individual stock returns as well as simultaneously control for a host of firm characteristic variables that impact stock returns.

We use panel regressions to test the cultural New Year effect by controlling for the January effect. To make the panel dimensions manageable and account for the fact that daily stock returns are noisier and more difficult to forecast, we use monthly, rather than daily, individual stock returns as the dependent variable. Using the monthly stock returns for the panel regression is also a necessary compromise as many firm-level characteristics are only available at the monthly, but not the daily, level. The regression specification is:

$$\begin{aligned} AR_{i,t} = {} & \beta_1 CNY_{i,t} + \beta_2 January_t + \beta_3 MVRank_{i,j,t-1} + \beta_4 B/MRank_{i,j,t-1} + \beta_5 LagRet_{i,j,t-1} \\ & + \beta_6 Momentum_{i,j,t-1} + \beta_7 ZeroProp_{i,j,t-1} + Year\ fixed\ effects \\ & + Country\ fixed\ effects + \varepsilon_{i,t} \end{aligned} \quad (2.4)$$

The dependent variable is monthly abnormal return (*AR*) for country *i* firm *j* in month *t*, estimated based on a world market model. The key independent variable is the cultural New Year month dummy (*CNY*) variable, which equals one if the majority of the cultural New Year trading day window (–4,+4) falls in that particular month for that country in a given year. January is a dummy for the month of January. Country fixed effects are included for the specification only when all markets are aggregated. Our firm characteristic control variables – market capitalization rank, the book-to-market equity ratio rank, short-run past returns, momentum, and illiquidity – are

[17] It is not the case that all markets are closed for a longer period around the cultural New Year holiday as compared with other holidays.

defined in Section II and the Data Appendix. We apply the panel regressions of monthly stock returns to each individual country as well as all of the markets to test the cultural New Year effect. In addition to the firm characteristics discussed previously, we control for year fixed effects and cluster the standard errors by firm.

Table 4 reports estimates of firm-level panel regressions. Similar to our analysis at the country portfolio level, by combining all markets we find statistically significant higher returns in the cultural New Year month. Across all markets, Table 4 shows that the average monthly stock return is 2.50% higher during the cultural New Year month (*t*-statistic = 30.83). Moreover, for individual market regressions, we find that five out of eleven individual markets have positive and statistically significantly *CNY* coefficients: China, Hong Kong, South Korea, Sri Lanka, and Taiwan; with the coefficient estimates ranging from 1.37% (South Korea) to 8.11% (China). All five countries have cash infusions at the turn of the cultural New Year, again largely consistent with Hypothesis 2.

Among the remaining markets, Singapore has a significant negative *CNY* coefficient and Israel has a negative insignificant *CNY* coefficient, but both also have cultural New Year cash infusions. This differs from our earlier findings at the country portfolio level in Table 3 that show a significant New Year effect in Singapore during the eight-day window surrounding the cultural New Year's day. There are two possible reasons for this finding. First, as reported in Table 1, Israel and Singapore have relatively high institutional ownership in their markets, and since institutional investor trading is less likely to be driven by sentiment, the dominance of institutional investors is likely to weaken the cultural New Year effect. We explore this explanation in greater detail later in Table VI. Second, since both Israel and Singapore are also very open to foreign investors who are unlikely subject to that country's cultural New Year effect (De Jong and De Roon 2005; Ng, Wu, Yu, and Zhang 2012; Chan, Khanthavit, and Thomas 1996), the influence of foreign investors may have increased the overall volatility of stock returns (Bae, Chan, and Ng 2004) and shortened the window of the New Year effect. Both consequences can make it difficult to detect the cultural New Year effect in the monthly regressions.[18]

[18] Data on foreign investor ownership is sparse in a number of markets in our study, which is why we are unable to do further analysis to quantify the effect of foreign ownership. High institutional ownership could also explain our results for Indonesia: While Faias et al. (2012) report that the Indonesian market institutional ownership stands at 11.30%, Rhee and Wang (2009) document that the Indonesian stock market is highly institutionalized with individual holdings accounting for less than 5% of the free-float market equity. In addition, our findings in Indonesia and Pakistan could be driven by economic factors: As reported in Table I, Indonesia and Pakistan have relatively low GDP per capita, which suggests that these stock markets may also be less developed and investing by ordinary individuals may be less common.

In addition, in 13 out of 21 years, Yom Kippur occurs in the cultural New Year month, which has possibly attenuated the positive effect surrounding Rosh Hashanah. A similar reason may help explain why none of the Islamic markets has a significantly positive *CNY* coefficient: Not only are these Islamic markets without a New Year cash infusion, but also the Day of Ashoura falls in the cultural New Year month in 15 years of the sample.

Overall, the estimates in Table 4 demonstrate that, after controlling for firm characteristics that are known to influence returns, the cultural New Year effect is evident in monthly individual stock abnormal returns when all markets are combined in the analysis. Furthermore, the cultural New Year effect is significantly positive predominantly in individual markets with cash infusions prior to the cultural New Year, with the exception of Israel and Singapore which are likely due to additional factors at work. Thus, these findings generally support both Hypotheses 1 and 2.

Our results thus far show a visible, strong cultural New Year effect at both the aggregate and individual stock level, particularly for countries with pre-New Year cash infusions. This evidence supports the idea that uplifted mood around cultural New Year celebrations promotes greater risk-taking and optimistic stock valuation. Employee bonuses paid prior to the cultural New Year allow investors to act on their increased demand for stocks, thereby pushing up stock returns.

2.4.4 Individual stock level tests: The individual investor clientele effect

Next, we turn to tests of Hypothesis 3. Since we posit that employees' investment of their New Year bonus facilitates the process whereby positive mood is integrated into stock prices, we expect that ordinary people (individual investors) drive the cultural New Year effect. As such, we expect stocks favored by individual investors to outperform other stocks around the cultural New Year holiday.

Specifically, we test Hypothesis 3 that posits that the cultural New Year effect is stronger among stocks with an individual investor clientele. Although we expect Hypothesis 3 to hold mainly for countries with cash infusions prior to the cultural New Year, we test this hypothesis using the entire cross section of monthly stock returns. We continue the panel regression framework but test for a stronger New Year effect on individual investor clientele stocks through

the interaction term between the *CNY* dummy variable and our composite individual investor clientele index (*IndCltRank*) as described in equation (2.5) below:

$$AR_{i,t} = \beta_1 CNY_{i,t} * IndCltRank_{i,j,t-1} + \beta_2 January_t * IndCltRank_{i,j,t-1} + \beta_3 CNY_{i,t} + \beta_4 January_t + \beta_5 IndCltRank_{i,j,t-1} + Controls + Year\ fixed\ effects + Country\ fixed\ effects + \varepsilon_{i,t} \quad (2.5)$$

Our *IndCltRank* variable is comprised of three individual investor clientele proxies, drawn from prior literature that demonstrates that individual investors prefer stocks with high idiosyncratic volatility, low prices, and high maximum daily returns (Kumar 2009; Bali, Cakici, and Whitelaw 2011). We explain our methodology for constructing our *IndCltRank* variable in Section II and the Data Appendix. Simply speaking, stocks with the highest *IndCltRank* (a rank of 19) are the most favored by individual investors, whereas stocks with the lowest *IndCltRank* (a rank of 0) are the least attractive to individual investors.

Hypothesis 3 predicts a positive coefficient on the interaction term between the *CNY* dummy variable and *IndCltRank*. Our specification also controls for the January effect and its interaction with *IndCltRank* for two reasons: First, a few of the New Year months overlap with January, so we want to ascertain that the New Year effect is not driven by the January effect. Second, the January effect is known to be associated with low-priced stocks (Bhardwaj and Brooks 1992). Since price is one of the components of *IndCltRank*, this effect will be picked up to some extent by the *January*IndCltRank* interaction term. The other control variables include country fixed effects, year fixed effects, and the set of other firm attributes used in Table IV.

We report the regression estimates in Table 5 for all markets and each market separately using monthly abnormal stock returns as the dependent variable. The panel regression results in Table 5 are largely consistent with Hypothesis 3. The coefficient on *CNY*IndCltRank* is positive and statistically significant when we pool all markets together. The coefficient estimate is 0.06 (*t*-statistic = 3.49). Since *IndCltRank* ranges from 0 to 19, the difference between the mean ranking of the top quintile and that of the bottom quintile of stocks is 16. The coefficient estimate implies an increase of monthly return by 0.96% (= 0.06%*16) as we move from the lowest to the highest *IndCltRank* quintile of stocks during the cultural New Year month. This is the marginal effect when we control for the main effect of *IndCltRank*, a host of other return predictors, and year and country fixed effects.

When the regression is estimated for individual countries, as expected, the results are a little mixed. For four out of seven countries that pay a pre-New Year employee bonus (China, Hong Kong, Sri Lanka, and Taiwan), the *CNY* IndCltRank* coefficient is positive and significant with the estimates ranging from 0.29% (Taiwan) to 0.37% (Sri Lanka). While the *CNY* IndCltRank* coefficients are insignificant for South Korea and significantly negative for Israel and Singapore, three countries with cash infusions, this effect cannot be classified as solely a Chinese New Year effect because Sri Lanka's *CNY*IndCltRank* coefficient is significantly positive. The lack of a significantly positive *CNY*IndCltRank* coefficient can be partially explained by the high institutional ownership of Israel, South Korea, and Singapore, which is explored in greater detail in Table VI. Among the remaining countries that do not pay an employee bonus, the *CNY*IndCltRank* coefficient is indistinguishable from zero or significantly negative, consistent with our Hypothesis 2.

2.5 Cash Infusion, Investor Makeup, and Alternative Explanations

2.5.1 Cash infusion

To gain a better picture about the role of the pre-New Year cash infusions, in Table 6 we specifically contrast the markets with and without employee bonuses paid immediately prior to the cultural New Year by estimating two separate regressions for the two subsamples. In Panel A, we examine the cultural New Year effect alone. In Panel B, we test for the individual investor clientele effect. The estimates confirm our prior intuition: In Panel A, the *CNY* coefficient is positive (3.62) and highly significant (*t*-statistic = 37.89) for markets that experience pre-New Year cash infusions, while the coefficient is significantly negative (–0.36, *t*-statistic = –2.84) for markets that do not. Further, in Panel B, the *CNY* IndCltRank* coefficient is positive (0.15) and highly significant (*t*-statistic = 6.09) for markets with pre-New Year employee bonuses, whereas the coefficient is significantly negative (–0.06, *t*-statistic = –2.28) for markets without such cash infusions. The estimates suggest that during the cultural New Year month, a typical stock in countries with pre-New Year cash infusions experiences a 3.62% higher average return than during other non-January months. Moreover, a stock in the top quintile with the most attractive features for individual investors has an additional 2.40% higher average return than those in the bottom quintile. These patterns reverse for stocks in countries without such cash infusions.

Overall, the results in Tables V and VI suggest that, for countries where employees are paid cultural New Year bonuses, stocks on average and especially those with an individual investor clientele tend to experience greater price appreciations during the cultural New Year month. This evidence suggests that through the channel of cash infusion and individual investor trading, the cultural New Year holiday mood affects stock returns, consistent with Hypotheses 1, 2, and 3.

2.5.2 Institutional ownership

A natural extension of Hypothesis 3 is that we expect to see a stronger cultural New Year effect when less institutional investors (i.e., more individual investors) make up the market in a given country. We do not explore the idea at the firm-level test due to the limited availability of individual firm institutional ownership data. At the country level, however, we gather each market's time-series average total institutional ownership as a fraction of stock market capitalization by country from 2000-2010 from Faias, Ferreira, Matos, and Santa-Clara (2012). Then, we classify the countries into above or below average institutional ownership by comparing the market's average institutional ownership with the mean institutional ownership of all emerging markets in the study of Faias et al., since a majority of the countries in our study are classified as emerging markets within the last two decades. Using this methodology, Israel, South Korea, and Singapore are identified as having above average institutional ownership.[19]

In Table 6, we re-estimate the regressions in equation (2.4) in Panel A and equation (2.5) in Panel B for the two subsamples. Among markets with above average institutional ownership, neither the *CNY* coefficient in Panel A nor the *CNY*IndCltRank* coefficient in Panel B is significant, whereas among markets with below average institutional ownership both coefficients are positive and significant. This evidence echoes our results based on individual investor clientele by showing that the cultural New Year effect is indeed weaker when the market has a higher concentration of institutional investors, which is in line with the notion that institutional investors are more sophisticated (Grinblatt and Keloharju 2001) and therefore less subject to the influence of mood.

[19] The average institutional ownership for emerging markets in the study of Faias, Ferreira, Matos, and Santa-Clara (2012) is 14.36%.

2.5.3 Tax loss selling

One possible explanation for the cultural New Year effect is tax loss selling, which refers to the behavior of investors to realize capital losses in order to reduce their tax burden at the end of the tax year. The tax loss selling hypothesis is used by many to explain the January effect (e.g., Reinganum 1983). In our context, investors may repurchase the sold stocks at the turn of the cultural New Year if it coincides with the tax year-end, pushing up their prices and causing strong performance of the stock market. This explanation suggests that the motivation for portfolio rebalancing at the turn of the New Year may not be solely due to changes in investor mood, but may be tax driven.

However, the tax-based explanation does not apply to our sample countries. As presented in Table 1, seven of the eleven sample markets do not have a separate capital gains tax. Of the remaining four markets, Indonesia, Israel, and South Korea begin their tax years in January, not their cultural New Year month (unless the two happen to coincide); and Pakistan begins its tax year on July 1st, not its cultural New Year month (unless the two happen to coincide).[20] Thus, tax loss selling does not apply to any market in our sample and is therefore unlikely a valid explanation for the cultural New Year effect.

Nevertheless, to formally test this alternative explanation, in Table 6, we estimate equation (2.4) in Panel A and equation (2.5) in Panel B separately for markets with and without capital gains tax. We find both the *CNY* coefficient in Panel A and the *CNY* IndCltRank* coefficient in Panel B are positive and significant for the subset of countries where there is no capital gains tax. For the subset of countries with a separate capital gains tax, the *CNY* coefficient remains positive and significant in Panel A but is much smaller in magnitude. Furthermore, the *CNY* IndCltRank* coefficient is indifferent from zero in Panel B. In other words, the fact that we observe a stronger cultural New Year effect among countries without capital gains tax is against the alternative explanation that the tax-motivated portfolio rebalancing is responsible for our main findings.

2.5.4 Short selling

Another possible factor that could drive the cultural New Year effect is short sales. In the U.S., Ariel (1990), among others, finds that stock markets experience run-up prior to major

20 Capital gains tax information was gathered from Deloitte Taxation and Investment Guides and Country Highlights: http://www.deloitte.com/taxguides.

holidays. One explanation is that short sellers cover short positions before holidays to avoid uncertainty when markets are closed during holidays (Fields 1934). However, the short-sale-based explanation cannot fully explain the cultural New Year effect because in four of eleven sample markets (China, Indonesia, Pakistan, and Sri Lanka), short sales are prohibited (e.g., Charoenrook and Daouk 2009; De Jong, Dutordoir, Van Genuchten, and Verwijmeren 2012).

To formally test this alternative explanation, in Table 6 we estimate the regressions in equation (2.4) in Panel A and equation (2.5) in Panel B for the subset of countries that allow short selling versus the subset that does not. Our estimates show that both the *CNY* coefficient in Panel A and *CNY* IndCltRank* coefficient in Panel B are positive and significant for the subset of countries where short selling is not allowed. These two coefficients are also positive and significant for the subset of countries where short selling is allowed but the magnitude of these coefficients are smaller, providing further support for our Hypotheses 1 and 3 that the cultural New Year effect is driven by investor mood as opposed to the closing of short positions.

Furthermore, we establish in Table 2 that the cultural New Year effect is significant in days prior to and after the cultural New Year. This contradicts the short-sale-based hypothesis that abnormal returns occur solely *prior to* the holidays, but not after holidays. Thus, the evidence collectively disputes the alternative explanation that short sellers covering positions prior to the cultural New Year drive our main findings.

2.5.5 Retail industry

Our cash infusion hypothesis is based on the idea that individuals use their employee bonuses to buy stocks; however, it is possible that individuals also use the excess cash for consumption. If this is the case, then firms in retail industries (Consumer Goods and Services) would be expected to have higher sales around the cultural New Year holiday due to higher consumption during this time. Thus, if higher sales lead to higher returns in the cultural New Year month, then the cultural New Year effect could be concentrated in firms in retail industries. This alternative explanation is complementary to our cash-infusion-based explanation but alludes to the distinct asset pricing channel of consumption.

To test for this consumption-based channel, in Table 6, we separate stocks based on whether the firm is a retail industry and re-estimate equation (2.4) in Panel A and equation (2.5) in Panel B to gauge whether the cultural New Year effect is isolated to the retail industry. We

identify a firm as in a retail industry if its ICBIC classification as reported in Datastream is either Consumer Goods or Consumer Services, which are most likely influenced by unexpectedly high holiday consumption.

The evidence indicates that the cultural New Year effect is not concentrated in retail industries only as the *CNY* coefficient is positive and statistically significant in both retail industries and other industries in Panel A. Further, Panel B demonstrates a strong cultural New Year effect through the individual investor channel in non-retail industries, underscoring that the cultural New Year effect is not isolated to industries related to consumer consumption.

Taken together, our findings of the cultural New Year effect are not fully explained by hypotheses based on tax loss selling, short selling, or industry classification. In contrast, a joyful investor mood together with cash infusions and individual investor trading around the cultural New Year provides the most plausible explanation for our findings from a set of culturally diverse international markets.

2.6 Conclusion

Motivated by the idea that optimism around a New Year holiday transcends cultural differences, we investigate the impact of cultural New Year holidays on stock returns around the world. Using returns of country market portfolios and individual stocks from eleven major international markets that celebrate six cultural New Year holidays from 1991 through 2011, we find evidence of a robust cultural New Year effect. Both aggregate country portfolio and individual stocks experience significantly higher abnormal returns surrounding the cultural New Year. Combining the eleven markets, we find that this cultural New Year effect is robust to the controls for the January effect, country and year fixed effects, a battery of firm characteristics known to influence returns, as well as the return adjustment for stock exposures to world market risk.

Our evidence suggests that this cultural New Year effect is driven by an optimistic investor mood around cultural New Year celebrations. As corroborating evidence, we show two channels through which a positive investor mood is converted into higher stock returns. First, employee bonuses paid at the cultural year-end provides cash for optimistic investors to enter the market or increase their equity holdings, leading to higher stock prices. Consistent with this idea, we find that the cultural New Year effect is strong predominantly in the subset of countries with cultural New Year cash infusions but absent in the other subset without such cash infusions.

Second, since individual investors are more subject the influence of mood around the cultural New Year, we expect that individual investors are more likely to positively influence the prices of stocks that they trade around the cultural New Year. Our evidence supports this hypothesis: The cultural New Year effect is significantly stronger among stocks with an individual investor clientele and among countries with a lower concentration of institutional ownership. Collectively, our evidence can be best explained by a common positive change in investor mood surrounding the cultural New Year that elevates stock prices through cash infusion and retail trading.

Our study is the first to document that a universally positive New Year holiday mood across different cultures has a similar impact of equities worldwide. We examine six distinct cultural New Year holidays—Chinese, Islamic, Jewish, Korean, Sinhalese, and Thai New Year holidays—that fall on different days or even months based on the year. By investigating the impact of non-fixed calendar holidays, our study provides a clean test in that it is unclouded by tax loss selling unlike the January 1st New Year. Our results contribute to the emerging literature linking the well-known holiday effect (Ariel 1990) with investor mood in an international context (Frieder and Subrahmanyam 2004; Bialkowski, Etebari, and Wisniewski 2012; Kaplanski and Levy 2012).

CHAPTER THREE

PRE-HOLIDAY MARKET REACTIONS TO CORPORATE ANNOUNCEMENTS

3.1 Introduction

An integral part of American culture is celebrating holidays – Valentine's Day, Fourth of July, Thanksgiving, and Christmas, among others. Holidays impact Americans' social activities, work schedules, and shopping habits. Holidays even affect individuals' investing behavior in the stock market. Fields (1934) was the first to observe that the Dow Jones Industrial Average tends to advance more than usual prior to holidays. Subsequent work thoroughly establishes this "pre-holiday effect" in which *aggregate* stock markets often outperform on trading days immediately prior to or on major holidays in the U.S. (Fields 1934; Lakonishok and Smidt 1988; Pettengill 1989; Ariel 1990; Frieder and Subrahmanyam 2004). Notably, Frieder and Subrahmanyam suggest that high market returns around holidays are driven by investor optimism, i.e. an uplifted holiday mood.

Although the pre-holiday effect has been the focus of several studies, there remains little understanding about holidays influence investors' perception of firm-specific information. In this paper, we investigate whether firm-specific announcements exhibit a pre-holiday effect. Our main inquiry is whether abnormal stock price reactions (after controlling for aggregate market performance) differ between corporate announcements that are made during pre-holiday trading days – defined as the two trading days immediately prior to a major holiday and the holiday itself if the market is open that day – and corporate announcements made on ordinary trading days.

Specifically, we study several types of major corporate event announcements, including stock repurchases, seasoned equity offerings (SEOs), acquisitions, and quarterly earnings. Our key finding is that abnormal stock price reactions to these corporate announcements are significantly higher on pre-holiday trading days than on ordinary trading days after controlling for a host of firm characteristics, event characteristics, and seasonal factors, as well as industry fixed effects.[21] We

[21] The firm characteristics controls include size, book-to-market, stock reversal, stock momentum, institutional ownership, turnover, and idiosyncratic volatility. The seasonal factors include dummy variables for Monday, Friday, January, and Fall. Event specific controls include target type and payment type for acquisitions and the earnings surprise and number of analysts following for earnings announcements.

term this finding of abnormally high announcement reactions immediately prior to holidays as the "pre-holiday firm announcement effect."

The economic impact of the pre-holiday announcement effect is significant. During the period 1984–2012, in multivariate regressions with all controls, if a firm makes an announcement on a pre-holiday trading day the abnormal announcement reaction is significantly higher by 78 basis points for share repurchases, 40 basis points for SEOs, 34 basis points for acquisitions, and 16 basis points for earnings, all significant at the 5% level. Relative to the unconditional mean reactions for the four types of events, reactions are higher by 36%, 15%, 71%, and 38%, respectively, on pre-holiday trading days relative to ordinary trading days. This result remains strong when we split the sample into favorable and unfavorable event types, where *favorable* corporate events include share repurchases, acquisitions of private targets, acquisitions of public targets with cash offers, and positive earnings surprises, and *unfavorable* events include SEOs, acquisitions of public targets with non-cash offers, and negative earnings surprises.

The results of our analysis are consistent with a mood-based explanation whereby investors are overly optimistic in reacting to corporate news due to an uplifted mood in anticipation of holidays. As we elaborate below, our empirical design has several unique features that allow us to reasonably rule out short selling, limited attention, and adverse selection as primary explanations of our results. First, in studies that examine aggregate pre-holiday returns, it is difficult to differentiate the uplifted mood explanation from a competing hypothesis first proposed by Fields (1934) that short sellers cover short position prior to an extended market closing. By studying firm-level data, we can directly control for the firm-specific level of short interest. The evidence does not support a short-sale-based explanation as a driver of the pre-holiday firm announcement effect.

Second, by studying corporate announcements with both favorable and unfavorable news, our tests help to address a competing hypothesis based on limited attention. Prior studies (e.g., DellaVigna and Pollet 2009; Hirshleifer, Lim, and Teoh 2009) show that in days with more limited investor attention, earnings announcements receive weaker market reactions. Thus, if the anticipation of a holiday distracts investors, the limited attention hypothesis can explain why unfavorable announcements incur *less* negative stock price reactions during the pre-holiday trading days. However, this hypothesis cannot explain why favorable firm announcements receive *more* positive market reactions. Thus, a limited attention explanation cannot fully account for the finding

of a unidirectional shift in stock price reactions across both favorable and unfavorable pre-holiday announcements.

Third, we focus on major corporate events whereby managers have the discretion to select the specific day for an announcement. This managerial discretion enables us to address another competing hypothesis based on adverse selections of corporate events (e.g., Michaely, Rubin, and Vedrashko 2014). If pre-holiday announcements are deliberately chosen by managers to take advantage of optimistic pre-holiday investor mood or limited pre-holiday investor attention, we expect unfavorable events to be announced more frequently and overall announcement reactions to be less positive or more negative during the pre-holiday trading days than during ordinary days. Such predictions, however, are not supported by our findings. Furthermore, in our multivariate regressions, we control for measures of information content of the announcements, such as an earnings surprise measure for earnings announcements and the payment type and target type in acquisitions announcements. Thus, we reasonably rule out that an adverse selection effect drives our results.

Motivated by the empirical support for uplifted mood as an explanation for the pre-holiday firm announcement effect, we study recent survey data to conduct further tests of uplifted pre-holiday mood. In particular, we collect unique survey data from the Gallup Daily U.S. Mood dataset over the period 2008–2012. The evidence shows that investors are indeed happier and less worried than usual in anticipation of holidays. These findings provide further support for the explanation that the pre-holiday firm announcement effect is caused by an uplifted investor mood prior to holidays, consistent with the explanation for the aggregate pre-holiday effect proposed by Frieder and Subrahmanyam (2004).

Our work is closely related to two recent papers that examine investor reactions to corporate announcements conditional on market or investor sentiment states. Gulen and Hwang (2012) find that firm-specific announcements are met with more positive abnormal reactions when the market return on the announcement day is up compared to when the market return is down. Mian and Sankaraguruswamy (2012) find that the stock price sensitivity to favorable earnings announcements is higher during months of high investor sentiment (Baker and Wurgler 2007) as opposed to low sentiment, while the reverse holds for poor earnings news. Our results remain strong when we add controls for Gulen and Hwang's measure of an up market and Baker and Wurgler's measure of monthly investor sentiment. Importantly, our research approach differs from

these papers because we use pre-scheduled and therefore highly predictable events, i.e. holidays, to explore investor reactions to corporate announcements.

A related study by Pantzalis and Ucar (2014) examines stock price reactions to earnings announcements before Easter and Thanksgiving. They find a significant post-earnings announcement drift for firms that announce before Easter but not for firms that announce before Thanksgiving, and attribute the results to religion-induced limited attention. Our study has a broader scope in the sense that we examine several types of major corporate announcements before thirteen major U.S. holidays and provide distinct evidence supporting a mood-based explanation for pre-holiday reactions to corporate news.

We conduct a number of tests to ensure robustness. In our main tests, we measure announcement reactions using the one-day abnormal return based on the market model. However, our results hold if we instead use the one-day abnormal return based on the Fama and French (1993) and Carhart (1997) four-factor model, the one-day abnormal return adjusted by size and book-to-market benchmark portfolio returns, or the two-day abnormal return, CAR(0,1).[22] Further, our results are not driven by systematic differences in announcement firms' characteristics in the pre-holiday versus ordinary trading days, and we find no consistent pattern across years as to whether there are relatively more or fewer announcements during the pre-holiday trading days. Finally, in contrast to the aggregate pre-holiday effect that dissipates after 2000, the pre-holiday firm announcement effect remains strong in the most recent decade.

3.2 Motivation and Hypotheses

A strand of literature has documented that stock markets on average exhibit abnormally high returns on trading days immediately prior to major holidays. This line of research starts with Fields (1934), is later developed by Lakonishok and Smidt (1988), Pettengill (1989), Ariel (1990), and is further extended to international settings by Cadsby and Ratner (1992), Kim and Park (1994), and Agrawal and Tandon (1994). Early explanations for the pre-holiday effect have focused on short sellers covering short positions in face of the uncertainty due to a long market closure (Field 1934), but Pettengill (1989) and Ariel (1990) argue that short selling does not fully explain the pre-holiday effect. A more recent explanation, posited by Frieder and Subrahmanyam

[22] In untabulated results, we verify that the pre-holiday firm announcement effect is not a manifestation of the post-earnings announcement drift (Bernard and Thomas 1990).

(2004), is that holidays are associated with increases in investor optimism and confidence. Consistent with this conjecture, they show that the U.S. market index experiences a price run-up in the days surrounding St. Patrick's Day and Rosh Hashanah (a Jewish New Year holiday) when the market remains open.

The literature on the pre-holiday effect has largely focused on aggregate stock market performance. Little is known about whether the anticipation of holidays affects stock price reactions to firm-specific events. We study this question and develop three competing hypotheses drawn from recent literature to guide testable predictions. These hypotheses are based on limited investor attention, uplifted investor mood, and adverse selection of firm announcements, respectively.

The limited attention hypothesis is derived from prior literature on market reactions to earnings announcements. Hirshleifer and Teoh (2003) present a theoretical model whereby investors with limited attention and processing power are unable to fully price value-relevant information in disclosure, causing delayed responses to firm announcements. Consistent with the predictions, DellaVigna and Pollet (2009) find that the market reaction is weaker for earnings announced on Fridays – when investors' attention is more limited – relative to other days of the week. Hirshleifer, Lim, and Teoh (2009) also find more delayed responses to earnings announced in days with more earnings announcements competing for investors' attention. Accordingly, if investors are distracted prior to holidays, the limited attention hypothesis predicts an underreaction to both positive and negative firm announcements. As a result, the announcement reaction will be less positive for favorable news and less negative for unfavorable news.

The uplifted mood hypothesis is derived from the literature of psychology, economics, and finance. Forgas (1995) develops an affect infusion model (AIM) in which people in a happier mood rely more on heuristic processes that foster greater risk-taking.[23] These findings are consistent with studies that report higher aggregate stock returns in the presence of a positive mood arising from sunshine (Saunders 1993; Hirshleifer and Shumway 2003) and cultural holidays (Frieder and Subrahmanyam 2004; Bialkowski, Etebari, and Wisniewski 2012). Once impacted by investor mood, however, asset prices may not quickly return to their fundamentals because of noise trader risk or other limits to arbitrage (De Long et al. 1990; Shleifer and Vishny 1997).

[23] Schwarz (1990, 2010) demonstrates that when in a positive mood, people often rely more on general, heuristic strategies, rather than critical analysis and detail-oriented thinking associated with a negative mood.

Moreover, current research demonstrates that optimism can bias how people react to new information so that they significantly underreact to negative information (Sharot, Korn, and Dolan 2011; Izuma and Adolphs 2011). In a financial experiment, Kuhnen and Knutson (2011) find that individuals in a positive mood ignore new information that contradicts their prior choices in order to preserve a positive mood. Furthermore, a positive mood also affects people's return expectations and demand for stocks. Kaplanski, Levy, Veld, and Veld-Merkoulova (2014) find that individuals in a positive mood expect higher future stock performance and exhibit a greater demand for stocks. Therefore, if investors tend to have a positive mood when anticipating an upcoming holiday, we expect them to underreact to unfavorable announcements as they ignore new negative information and overreact to favorable announcements due to higher return expectations. Thus, the uplifted mood hypothesis predicts an increase in abnormal announcement returns regardless of the news content. This is in sharp contrast to the limited attention hypothesis that predicts investor underreaction to both favorable announcements and unfavorable announcements.

Lastly, the adverse selection hypothesis is premised upon managers' knowledge that investors are subject to either the influence of mood or limited attention in anticipation of holidays, and therefore managers have an incentive to maximize the short-term stock prices by taking advantage of imperfect investor rationality (e.g. Stein 1996; Shleifer and Vishny 2003). Thus, our adverse selection hypothesis posits that firms with bad news will self-select to make announcements prior to holidays. This hypothesis is developed from the large literature on managerial market timing, which documents that managers time new issues, repurchases, and mergers and acquisitions in periods with temporary stock mispricing (Baker and Wurgler 2002; Hirshleifer and Jiang 2010; Jiang, Likitapiwat, and McInish 2012).

There is also evidence that firms cater to investor preferences when determining dividend policy (Baker and Wurgler 2004a, 2004b), setting nominal share prices (Baker, Greenwood, and Wurgler 2009), selecting share class names (Ang, Chua, and Jiang 2010), and pricing retail financial products (Henderson and Pearson 2011). More recently, Michaely, Rubin, and Vedrashko (2014) show that firms tend to announce more negative earnings news during, as opposed to outside of, trading hours and these within-trading-hour announcements receive smaller immediate reactions.

If investors are in a more positive mood or have more limited attention immediately prior to holidays, opportunistic managers will find it tempting to announce bad news at that time. This

adverse selection, or market timing, will result in poorer news content and lower average announcement returns for announcements made on pre-holiday trading days than announcements on ordinary trading days. Based on this logic, the predicted lower stock price reaction on pre-holidays resulting from adverse selection (i) applies when the sample includes only unfavorable events or both unfavorable and favorable event types, and (ii) is predicated on the assumption that the detrimental effect on market reactions due to the clustering of bad news announced prior to holidays outweighs any positive effect on market reactions due to limited attention and / or mood.

Building on these arguments, we posit three competing hypotheses regarding the abnormal reaction to corporate event announcements that fall on pre-holiday trading days:

H1: Limited Attention: Pre-holiday firm event announcements receive *weaker* abnormal stock price reactions than announcements that are made on ordinary trading days.

H2: Uplifted Mood: Pre-holiday firm event announcements receive *higher* abnormal stock price reactions than announcements that are made on ordinary trading days.

H3: Adverse Selection: Pre-holiday firm event announcements receive *lower* abnormal stock price reactions than announcements that are made on ordinary trading days. This effect is caused by an adverse selection effect in which poorer news content is announced on pre-holiday trading days.

We test these hypotheses using a large sample of corporate announcements of share repurchases, SEOs, acquisitions, and quarterly earnings. Share repurchase announcements are typically met with positive market reactions (Grullon and Michaely 2004), while SEO announcements usually result in negative market reactions (Lee and Masulis 2009). Announcements of acquisitions of private targets are viewed positively by the market, whereas announcements of acquisitions of public targets are viewed negatively by the market unless the payment method is cash only (Moeller, Schlingemann, and Stulz 2004). Positive earnings surprises are associated with positive abnormal returns, while negative earnings surprises are associated with negative abnormal returns (DellaVigna and Pollet 2009).

3.3 Data and Variables

3.3.1 Sample of corporate events

The sample includes corporate announcements of share repurchases, seasoned equity offerings (SEOs), acquisitions, and quarterly earnings from 1984 to 2012. We collect announcement-related data on repurchases, SEOs, and acquisitions from Securities Data Company

(SDC), and data on earnings from I/B/E/S and Compustat. Our sample period starts in 1984 due to the availability of I/B/E/S data on quarterly earnings announcements. Each sample firm must have CRSP in the event month and Compustat data for the fiscal year ending prior to the event year.

We study a broad a sample of corporate announcements with only a few restrictions so that our results can be compared with prior literature. In particular, we restrict the sample to common stocks with prices above $1 that are listed on the NYSE, AMEX, or NASDAQ, and we exclude financial firms because corporate announcements by these firms could have different valuation implications due to their unique regulatory environment. We only consider share repurchases that are open market repurchases. In our sample of SEOs, we exclude rights offers and unit offers. For non-shelf SEOs, the announcement date is set as the SDC filing date. For shelf-registered SEOs after 1990, the filing date usually does not accurately reflect the firm's announcement to issue. Following prior literature (e.g., Autore, Hutton, and Kovacs 2011), we set the announcement date as the date on which the firm files a pre-issue prospectus with the SEC. This date is manually collected by searching the SEC's Edgar archives for the period 1994-2012. Acquisition announcement dates are obtained from SDC. We only consider acquisitions where the acquirer seeks a majority stake in the target; thus, we include only announcements where the percentage of the target sought is more than 50%. In addition, we include only announcements where the target is either a public firm or a private firm (Moeller, Schlingemann, and Stulz 2007); however, our results are robust to including subsidiaries as targets. We examine acquisition announcements from the perspective of the acquirer because the target firm typically does not have discretion as to when the acquisition announcement is made, while the acquirer does have discretion.[24]

Quarterly earnings announcement dates are obtained from I/B/E/S and Compustat. We use the procedure outlined in DellaVigna and Pollet (2009) to determine the reported announcement date. Earnings surprises are calculated as actual EPS minus median analyst forecast EPS, all scaled by the closing stock price two weeks prior to the announcement date. EPS is earnings per share as reported by I/B/E/S and median analyst forecast EPS is the median of the most recent forecasts from individual analysts using the I/B/E/S detail tape. We include only the most recently issued

[24] We conduct additional screening procedures when we match six-digit CUSIPs between SDC and CRSP to ensure the firms are matched correctly. This additional screening does not materially affect our results in any way and is undertaken only to ensure the quality of our data.

one-quarter-ahead forecasts and exclude all announcements of negative earnings, following Mian and Sandaraguruswamy (2012).

Using these criteria, we identify a total sample of 191,629 total corporate announcements, of which there are 9,522 repurchase announcements, 5,054 SEO announcements, 16,549 acquisitions announcements, and 160,504 earnings announcements.

3.3.2 Calculating abnormal announcement date stock price reactions

To study the stock price reaction to firm announcements, we calculate the abnormal return (AR) on the announcement date. In our main tests, AR is the one day abnormal return based on the market model estimated over the trading day window (–180, –11). That is, our AR measure purges out the aggregate market returns and is not influenced by the aggregate pre-holiday effect. We perform robustness checks later using alternative measures of abnormal returns.

Prior literature on the pre-holiday effect shows that the impact of holidays on stock returns occurs immediately prior to or on holidays. Thus, it is important to identify precisely when the announcement effect occurs. For example, some announcements are made before a holiday but after the market closes for the holiday, resulting in a post-holiday announcement effect. Such announcements should not be classified as occurring on a pre-holiday trading day, but would be classified as such if we simply identify the announcement date based on the recorded announcement date.

To address this potential problem, we pinpoint the announcement date by imputing the day on which the announcement effect occurs, using a procedure similar to Gulen and Hwang (2012). We first calculate the market-model based abnormal return on the reported announcement date (AR_0) and on the following trading day (AR_1). Next, we impute the announcement effect date to capture the true date on which investors react to the announcement. Specifically, if the absolute value of AR_0 is greater than or equal to the absolute value of AR_1, then the imputed announcement effect date is the reported date and we set $AR = AR_0$. If the absolute value of AR_1 is greater than the absolute value of AR_0, then the imputed announcement effect date is the trading day that immediately follows the reported date and we set $AR = AR_1$. For simplicity in language, we refer to the imputed announcement effect date as the imputed announcement date. Hereafter, the variable AR refers to the abnormal return on the imputed announcement date, unless otherwise stated.

3.3.3 Selected holidays and *Preholiday* indicator

We study 13 major U.S. holidays that have been celebrated in the United States for at least 100 years. They include New Year's Day, Valentine's Day, Presidents' Day, St. Patrick's Day, Easter, Mother's Day, Memorial Day, Father's Day, Independence Day (Fourth of July), Labor Day, Halloween, Thanksgiving, and Christmas.[25] We create a *Preholiday* binary indicator that equals one if the imputed announcement date falls on pre-holiday trading days, i.e. trading day $t-2$, $t-1$, and t if a holiday is a trading day, where day t refers to the holiday. Day t is a non-trading day for all holidays except when Valentine's Day, St. Patrick's Day, or Halloween fall on a weekday. As a result, only a small fraction of our events occur on an actual holiday.

3.3.4 Control variables

Control variables include firm size, B/M, reversal, momentum, institutional holdings, turnover, idiosyncratic volatility, day of the week, seasonality, and industry fixed effects. These variables have been shown in prior studies to affect stock returns (French 1980; Ikenberry, Lakonishok, and Vermaelen 1995; Moeller, Schlingemann, and Stulz 2007; Berkman et al 2009; Lee and Masulis 2009; Hirshleifer, Lim, and Teoh 2009; DellaVigna and Pollet 2009; Bonaimé 2012). We also add a few control variables that are specific to the type of announcement as discussed later.

Specifically, firm size Log(*MktCap*) is the natural logarithm of the market capitalization at the end of the prior month. Book-to-market (*B/M*) is defined as in Fama and French (1992). *Reversal* is the stock return of the prior month and is meant to capture short-term reversal. Momentum is the cumulative monthly stock return from month $t-12$ to $t-2$. Institutional holdings (*Institthold*) are the number of shares held by institutions divided by the number of shares outstanding for the prior quarter, obtained from the Thomson Reuters 13F filings. *Turnover* is defined as volume of the prior month divided by shares outstanding. Idiosyncratic volatility (*Ivol*) is the standard deviation of the residuals of the previous month's daily returns (at least 17 days) regressed on the Fama-French three factors (Ang, Hodrick, Xing, and Zhang 2006). The *Monday* and *Friday* dummy variables equal one if the imputed announcement date falls on a Monday or a Friday respectively. The *January* dummy variable equals one if the imputed announcement date falls in January. We include a *Fall* dummy variable that equals one if the imputed announcement

[25] All holiday dates are gathered from http://www.timeanddate.com/holidays/us/.

date occurs between the autumnal equinox and the winter solstice because Kamstra, Kramer, and Levi (2003) document lower stock market returns during the fall season due to investors' higher risk aversion during this time.

For our sample of acquisition announcements and earnings announcements, we include additional variables to control for the information content of these announcements. When a bidder announces the proposal to acquire a public target firm using equity, the market reaction is generally negative for the acquirer because the market views the announcement as a signal that the bidder's equity is overvalued (Moeller, Schlingemann, and Stulz 2007). If the proposed acquisition is a cash acquisition, however, the market sees the announcement as a signal that the bidder's equity is undervalued and thus the bidder's abnormal return is positive upon the announcement (Travlos 1987; Moeller, Schlingemann, and Stulz 2004). Therefore, we include both a *CashOnly* dummy variable, which equals one if the method of payment is solely cash. Moreover, announcements of private target acquisitions are associated with higher abnormal bidder returns relative to announcements of public target acquisitions regardless of the method of payment (Faccio, McConnell, and Stolin 2006). Thus, we include a dummy variable *Public* which equals one if the target is a public firm and zero if the target is a private firm. For our sample of earnings announcements, we construct an additional control variable capturing the amount of the earnings surprise. To account for the influence of possible time-series properties of earnings surprise in our panel regressions, we rank earnings announcements into deciles based on the magnitude of the earnings surprise each quarter. The decile rank is an ordinal variable called *Surprise*. The *Surprise* decile one contains the earnings surprises of the lowest magnitude and the *Surprise* decile ten contains the earnings surprises of the highest magnitude for each quarter. In addition, we include the number of analysts' estimates for the stock that quarter, *NumAnalysts*, which proxies for investor sophistication and analysts' coverage (Ali, Hwang, and Trombley 2003; Fang and Peress 2009).

3.4 Main Results on the Pre-holiday Firm Announcement Effect

3.4.1 Descriptive statistics

In Table 7, Panel A reports descriptive statistics for all corporate announcements and separately for each type of corporate announcement. In the entire sample, the mean abnormal announcement return (AR) equals 0.43%. Across event types, we observe ARs of 2.34% for

repurchases, –2.76% for SEOs, 0.50% for acquisitions, and 0.41% for earnings. These estimates are consistent with prior literature showing that on average a repurchase announcement is a positive signal (e.g., Vermaelen 1981; Grullon and Michaely 2004), an SEO announcement is a negative signal (e.g. Asquith and Mullins 1986; Lee and Masulis 2009), and earnings announcements are accompanied by positive reactions (e.g., Joy, Litzenberger, and McEnally 1977; DellaVigna and Pollet 2009). Our sample of acquisitions is dominated by acquisitions of private firms (14,042 private targets vs. 2,507 public targets), so it is no surprise that the acquisition announcement abnormal return is positive (Faccio, McConnell, and Stolin 2006).

Distinguishing the three competing hypotheses requires that we separately examine favorable versus unfavorable corporate events, in addition to samples that combine both types of events. Favorable events include repurchases, favorable acquisitions, and positive earnings surprises, where favorable acquisitions are defined as those in which there is a private target or cash acquisition of a public target and positive earnings surprises are those in which earnings meet or exceed the median analyst's estimate. Unfavorable events consist of SEOs, unfavorable acquisitions, and negative earnings surprises, where unfavorable acquisitions are those with public targets and non-cash offers and negative earnings surprises are those in which earnings fail to meet the median analyst's estimate. Consistent with our expectation, favorable and unfavorable acquisition announcements are associated with ARs of 0.71% and –1.16%, respectively. Similarly, positive and negative earnings announcements exhibit respective ARs of 1.43% and –1.91%.

In Panels B and C of Table 7, we partition the sample into announcements that occur on ordinary days (Panel B) versus pre-holiday trading days (Panel C). A comparison of abnormal returns for each event type suggests that the abnormal stock price reaction is higher for announcements that occur on pre-holiday trading days as opposed to ordinary trading days. The mean values of AR are more positive on pre-holiday trading days by 0.64% for share repurchases, 0.15% for SEOs, 0.31% for acquisitions, and 0.13% for earnings announcements. Importantly, for events that are viewed negatively in general (i.e. SEOs, unfavorable acquisitions, and negative earnings surprises) ARs are always less negative on pre-holiday trading days, and for events that are viewed positively (i.e. share repurchases, favorable acquisitions, and positive earnings surprises) ARs are always more positive on pre-holiday trading days. Formal tests of this relationship are conducted later in Section 4.2.

Figures 3.1A – 3.1C display bar graphs of abnormal returns across event types on both pre-holiday trading days and ordinary trading days. Figure 2A displays share repurchases and SEOs similar to the numbers in Table 7. Figure 2B more finely partitions acquisitions by deal type. Acquirer abnormal returns are positive for acquisitions of private targets regardless of the method of payment, consistent with Faccio, McConnell, and Stolin (2006), and are also positive for cash acquisitions of a public target (Moeller, Schlingeman, and Stulz 2004). Also as predicted, abnormal returns are negative if the bidder plans to acquire a public target without cash as the sole means of payment (Moeller, Schlingeman, and Stulz 2004). In all four instances, the abnormal return is higher (i.e. less negative or more positive) if the acquirer announces on a pre-holiday trading day.

Figure 2C partitions earnings announcements by the *Surprise* deciles and depicts the average abnormal return on pre-holiday trading days versus ordinary trading days within each decile. The figure generally shows that earnings announcements during pre-holiday trading days are associated with less negative abnormal returns in the unfavorable surprise deciles and more positive abnormal returns in the favorable surprise deciles. This pattern is strongest for the most extreme earnings surprises (the lowest and highest deciles). Thus, controlling for the specific information content of acquisition announcements and earnings announcements, we continue to observe more favorable market reactions during the pre-holiday trading days. The preliminary sorts in Table 7 and Figure 2 seems to favor the uplifted mood hypothesis over the limited attention and adverse selection hypotheses. In the next section, we conduct more formal multivariate tests.

Table 7 also reports statistics on other firm characteristics. Firms making share repurchases tend to be slightly larger, have higher BM, and have substantially lower prior returns (momentum) than SEO firms, while the characteristics of earnings announcement firms reflect those of general firms and tend to lie between the characteristics of repurchase and SEO firms. The average size and B/M of acquiring firms are similar to the samples of Cooney, Moeller, and Stegemoller (2009) and Moeller, Schlingemann, and Stulz (2007) respectively. Of particular note, market capitalization is noticeably smaller for firms announcing on pre-holiday trading days for nine out of 11 categories; however, the reverse is true for SEOs and favorable acquisitions. The average B/M is slightly higher across events for firms announcing on pre-holiday trading days. For these reasons, in later robustness checks, we also calculate abnormal returns based on the 4 factor model

(Fama and French 1993; Carhart 1997) and by matching sample firms with their respective Fama-French 25 size-BM portfolios.

Among the remaining firm characteristics, there is no clear and consistent difference between the two subsamples in institutional ownership, turnover, idiosyncratic volatility, reversal, or momentum. To verify this observation, we implement the following logistic estimations to test whether firms that announce events on pre-holiday trading days have significantly different characteristics than firms announcing on ordinary trading days:

$$\begin{aligned} Logit[Pr(Preholiday = 1 \mid Z)] = {} & \beta_1 Log(MktCap) + \beta_2 B/M + \beta_3 Reversal + \beta_4 Momentum \\ & + \beta_5 Institthold + \beta_6 Turnover + \beta_7 Log(Ivol) \\ & + FF30\ Industry\ fixed\ effects + \varepsilon \end{aligned} \quad (3.1)$$

where the *Preholiday* dummy is set as one if the firm announces on pre-holiday trading days and is set as zero on ordinary trading days. We estimate this model for the entire sample of corporate announcements and for each of the other categories of corporate announcements in Table 7. Table 8 reports the results. The Wald-Chi Square statistic is reported in parentheses. Across corporate events, no firm characteristic is consistently statistically significant, and in some cases the sign of the predictor changes across events. This suggests that it is unlikely that our results are driven by a particular firm characteristic.

3.4.2 Multivariate estimations

Our formal tests of the three hypotheses rely on the multivariate panel regressions, which identify the relationship between the preholiday dummy and market reaction measured by AR for our sample of corporate event announcements. Such regressions allow us to simultaneously control for a large set of firm characteristics and industry fixed effects based on the Fama-French 30 industry classification. To account for the possible bias in standard errors introduced by cross-correlations, we cluster standard errors by firm for the combined groups of corporate announcements and for the separate estimations of earnings announcements. However, for the estimations for share repurchases, SEOs, and acquisition announcements, we cluster standard errors by industry because a substantial number of firms do not repeatedly enter the sample; the

majority of SEO and repurchase firms only have one such announcement in the entire sample, and 37% of acquirers only have one acquisition announcement.

Specifically, we estimate a panel OLS regression with the abnormal announcement day return (AR) on the imputed announcement date as the dependent variable. The specification is:

$$AR = \beta_1 Preholiday + \beta_2 Log(MktCap) + \beta_3 B/M + \beta_4 Reversal + \beta_5 Momentum + \beta_6 Institthold + \beta_7 Turnover + \beta_8 Log(Ivol) + \beta_9 Monday + \beta_{10} Friday + \beta_{11} January + \beta_{12} Fall + FF30\ Industry\ fixed\ effects + \varepsilon \quad (3.2)$$

The key explanatory variable is *Preholiday*, which equals one for announcements that occur on pre-holiday trading days and zero for announcements on ordinary trading days. For estimations of acquisition announcements the regressions also contain the control variables *CashOnly* and *Public*, and the estimations focused on earnings announcements control for *Surprise* and *NumAnalysts*. The control variables are defined in Section 3.4 and are also listed in the Data Appendix. All continuous independent variables are standardized to have zero mean and unit variance for ease of interpretation.

The limited attention hypothesis (H1) predicts a negative coefficient on *Preholiday* for favorable announcements and a positive coefficient for unfavorable announcements; i.e. this hypothesis predicts a reaction that is smaller in magnitude. In contrast, the uplifted mood hypothesis (H2) predicts a uniformly positive coefficient on *Preholiday*. Finally, the adverse selection hypothesis (H3) predicts a negative coefficient on *Preholiday* for specifications that include only unfavorable events or include both favorable and unfavorable event types (i.e. all corporate events, all acquisitions, and all earnings). In the latter case, firms with unfavorable announcements should outnumber firms with favorable announcements on pre-holiday trading days.[26]

Panel A of Table 9 reports the baseline estimations. In Model (1), the coefficient estimate implies that abnormal stock price reactions in the entire sample of corporate announcements are 0.16% higher (*t*-statistic = 2.55) on pre-holiday trading days than ordinary trading days. The magnitude of this effect is largely driven by the reactions to earnings announcements because the large sample size of earnings dominates the overall sample. The remaining estimations partition

[26] The adverse selection hypothesis has no prediction in models that include only favorable events.

the sample by type of event to distinguish between the various predictions of the three competing hypotheses.

Models (2)-(5) report a combined estimation for all favorable events and separate estimations for each favorable event type: repurchases, favorable acquisitions, and positive earnings surprises, respectively. Models (6)-(9) report a combined estimation for all unfavorable events and separate estimations for each unfavorable event type: SEOs, unfavorable acquisitions, and negative earnings surprises, respectively. The results consistently show that announcements made on pre-holiday trading days are associated with more positive abnormal stock price reactions relative to announcements made on ordinary trading days. In particular, in the entire group of favorable corporate announcements (Model (2)), *Preholiday* enters positively and significant with a coefficient estimate of 0.18% (*t*-statistic = 2.41). In the next three models, the effect of *Preholiday* equals 0.78% for repurchases, 0.32% for favorable acquisitions, and 0.14% for positive earnings surprises. Similarly, for the group of unfavorable announcements (Model (6)), the coefficient of *Preholiday* is 0.23% (*t*-statistic = 2.01). The coefficient of *Preholiday* equals 0.40% for SEOs, 0.49% for unfavorable acquisitions, and 0.22% for negative earnings surprises. These coefficient estimates are statistically significant in 7 out of 8 specifications and are large in economic terms. For example, compared to the unconditional average reaction to each event, on pre-holiday trading days the abnormal reaction is more positive by 36% for repurchases, 47% for favorable acquisitions, and 10% for positive earnings surprises. Similarly, compared to the unconditional average, the pre-holiday abnormal reaction is less negative by 15% for SEOs, 47% for unfavorable acquisitions, and 11% for negative earnings surprises.[27] For specifications of unfavorable events, the results do not support adverse selection (H3), but are consistent with both limited attention (H1) and uplifted mood (H2). However, our results for favorable events are only consistent with the uplifted mood hypothesis. Thus, across models, the reported coefficient estimates are most consistent with H2 that an uplifted investor mood elevates market reactions to firm announcements, regardless of the information content of the news.

Finally, Models (10) and (11) report estimations for the full sample of acquisitions and earnings. In each model the coefficient of *Preholiday* enters positively and significantly at the 5%

[27] We note that the sample size for each event type is smaller in the multivariate regressions due to missing firm characteristics for some of the firms. The percentages we report here are relative to the unconditional average reaction in the sample of events used in the regression. The effect of this adjustment is minor because the unconditional reactions are very similar in these slightly reduced samples.

level, taking values of 0.34% (*t*-statistic = 2.41) for acquisition announcements and 0.16% (*t*-statistic = 2.40) for earnings announcements. In these models, we control for the content of the announcement. For acquisition announcements we include the binary indicators *Public*, which enters negatively, and *Cashonly*, which enters positively, both as expected. For earnings announcements we control for analyst following, *NumAnalysts*, which enters positively, and we account for the earnings content by including *Surprise*, which enters positively indicating that more positive surprises are associated with higher ARs.[28] The inclusion of these variables suggests that the positive pre-holiday effect on firm announcements we report is not driven by the content of corporate announcements. These estimations continue to support the uplifted mood hypothesis but are not consistent with the negative predicted effect of the adverse selection hypothesis.

Across models, the coefficients of the other control variables are largely consistent with prior literature and intuition. The coefficient of *MarketCap* is negative for repurchases and positive for SEOs, consistent with Babenko, Tserlukevich, and Vedrashko (2012) and Lee and Masulis (2009), respectively. Volatility (*Ivol*) has a positive effect on abnormal returns for repurchases and a negative effect on abnormal returns for SEOs, in line with the findings of Bonaimé (2012) and Lee and Masulis (2009). Acquirer announcement abnormal returns are lower for large firms and decreasing as idiosyncratic volatility increases, similar to Moeller, Schlingemann, and Stulz (2007). For earnings announcements, the negative coefficient on *MarketCap*, positive coefficient on *B/M*, positive coefficient on *Instithold*, negative coefficient on *Turnover*, and positive coefficient on *Ivol* are all consistent with Berkman et al (2009). In addition, the negative *Friday* coefficient for positive earnings surprises is consistent with DellaVigna and Pollet (2009).[29]

In Panels B to D, we re-estimate the main estimations in Panel A to ensure that our main results are insensitive to our calculation of abnormal returns at the announcement. This concern is reasonably ruled out. First, in Panel B, we replace the one-day imputed AR with a two-day cumulative abnormal return that includes the reported announcement date and the following day, CAR (0, 1). The magnitude and statistical significance of the *Preholiday* coefficient remains strong and is generally similar or slightly larger compared to our baseline estimations, demonstrating that our results are not driven by a sluggish initial market reaction. Second, we estimate the imputed

[28] Untabulated results show that the *Preholiday* coefficient remains positive and significant after controlling for the *Surprise* of the previous four quarters (Bernard and Thomas 1990)

[29] DellaVigna and Pollet (2009) find that the market reaction to negative earnings surprises is less negative on Fridays. Their sample, however, includes announcements of negative earnings (i.e. firms with net losses), which our sample omits following Mian and Sankaraguruswamy (2012).

AR using the Fama-French four factor model (Panel C). The coefficient of *Preholiday* is statistically significant in eight out of 11 estimations and is similar in magnitude compared to Panel A. Third, to further alleviate concerns that the pre-holiday firm announcement effect is caused by firm attributes, we match each firm in our sample to one of the 25 Fama-French size-B/M portfolios. Firms are assigned to their respective portfolios using the monthly size breakpoints and annual B/M breakpoints available on Kenneth French's website. Fama-French 25 size-B/M portfolio daily returns are those reported on Kenneth French's website. We calculate a portfolio matched abnormal announcement return by subtracting the daily return on the matching portfolio from the firm's raw return on the imputed announcement date. By using a matching portfolio, we reduce the idiosyncratic noise that is inherent in one-to-one firm dimension-by-dimension matching or propensity score matching. Panel D presents the estimations and shows results that are similar to our baseline models. This evidence suggests that the pre-holiday firm announcement effect is not concentrated among either small firms or firms with high B/M.

Additionally, we investigate whether the pre-holiday firm announcement effect is clustered in certain industries by examining the average abnormal returns for pre-holiday versus ordinary trading days separately for each industry according to the Fama-French 30 industry classification. In unreported tests, we find that a higher average abnormal announcement return in pre-holiday trading days is present in 72% of the industries in our sample, suggesting that our finding is not driven by a few particular industries. Moreover, we include industry dummy variables in our logistic regression in Table 8 and found that no specific industry was consistently more likely to make pre-holiday announcements. Also, in untabulated results, we find that the pre-holiday firm announcement effect is not driven by any one particular holiday, although the effect is the strongest prior to New Year's Day.

Overall, the evidence in Table 9 indicates that stock price reactions to corporate announcements of share repurchases, SEOs, acquisitions, and earnings are more positive when the announcement takes place in the two days prior to a holiday or on the holiday itself if the market remains open. This evidence suggests that the decision to announce on pre-holiday trading days has a robust *positive* economic impact on the market reaction, regardless of whether the announcement conveys favorable or unfavorable news. We term this finding the "pre-holiday firm announcement effect."

The sum of evidence is most consistent with the uplifted mood hypothesis (H2), which always predicts a positive effect of *Preholiday*. The results cannot be fully explained by limited attention (H1) because this hypothesis predicts a negative coefficient on *Preholiday* for favorable events. Furthermore, the estimates are inconsistent with the adverse selection hypothesis (H3), with the important caveat that H3 assumes that the fundamental valuation effect due to adverse selection (whereby more negative news is more prominent in pre-holiday announcements) has a stronger stock price impact than the behavioral effects due to limited attention or uplifted mood. We cannot rule out the possibility that the negative impact of adverse selection is obscured or reversed by a stronger positive effect of limited attention and / or uplifted mood. If this is indeed the case, however, the valuation effect of adverse selection would be relatively small in economic terms. Nevertheless, we address this issue further in Section 3.4.4, which examines the relative frequency of favorable versus unfavorable announcements made on pre-holiday trading days.

3.4.3 Controlling for up market, monthly investor sentiment, and short interest

Next, we conduct further tests to address the possibility that the more favorable market reactions on pre-holiday trading days are driven by market performance, monthly investor sentiment, and short selling activity. First, Gulen and Hwang (2012) demonstrate that market reactions to corporate announcements are uniformly more favorable when the market is up. Therefore, it is possible that the more favorable market reactions we observe are driven by the well-documented evidence that the market exhibits strong performance on pre-holiday trading days. If so, what we uncover may be simply a subset of the pattern documented by Gulen and Hwang. To address this possibility, we follow Gulen and Hwang by creating a binary indicator *Up* equaling one if the market earns a positive return on a given day and zero otherwise. We add *Up* to the baseline regression as follows:

$$AR = \beta_1 Preholiday + \beta_2 Up + Controls + FF30\ Industry\ fixed\ effects + \varepsilon \quad (3.3)$$

If the pre-holiday firm announcement effect is not driven by aggregate market outperformance, we expect the coefficient estimate on *Preholiday* to remain significantly positive with the addition of *Up*.

Panel A of Table 10 reports the results. The estimates show that our main results are robust to the inclusion of *Up*. Consistent with Gulen and Hwang (2012), the *Up* variable is generally

positive and significant. Across all events, an up market increases the market reaction to corporate announcements by 11 basis points. The economic effect of *Up* is larger for the group of unfavorable events (0.20%) compared to favorable events (0.08%). Most importantly, the *Preholiday* coefficient remains positive and statistically significant in 10 out of 11 models and is similar to the baseline estimates, and it is also noteworthy that the *Preholiday* coefficient is usually larger than the *Up* coefficient. In the entire sample of events, the Preholiday coefficient is 0.16% (*t*-statistic = 2.45), implying that announcements made during pre-holiday trading days when market is up are associated with abnormal returns that are 16 basis points higher relative to announcements made during ordinary trading days when market is also up. Thus, the pre-holiday firm announcement effect is incremental to the effect of an up market.

A second alternative explanation for the pre-holiday firm announcement effect reflects the influence of the aggregate investor sentiment for the month, rather than pre-holiday mood during pre-holiday trading days. To account for this possibility, we add the Baker and Wurgler (2007) monthly investor sentiment measure (*Sentiment*) to equation (3.2):

$$AR = \beta_1 Preholiday + \beta_2 Sentiment + Controls + FF30\ Industry\ fixed\ effects + \varepsilon \qquad (3.4)$$

The *Sentiment* measure is orthogonalized to macro-economic variables and observed at the beginning of each month. While mood varies from day to day, investor sentiment shifts more gradually over months. Table 10, Panel B shows that the effect of *Sentiment* is mixed. Across models, sometimes it enters positively, sometimes negatively, and occasionally insignificant.[30] However, the remaining positive effect of *Preholiday* in 10 of 11 specifications suggests that, after controlling for the general investor sentiment, pre-holiday mood induces a more favorable market reaction to firm announcements. Thus, our results show that the pre-holiday effect is not explained by the general monthly investor sentiment.

Finally, we examine the possibility that our results are due to short sellers closing out their positions ahead of market closures (Fields 1934). This explanation is not likely considering that Pettengill (1989) finds that the general pre-holiday effect is not explained by market closures and Ariel (1990) points out that the closing of short positions hypothesis cannot explain positive returns

[30] Our regression specification differs from that of Mian and Sankaraguruswamy (2012) in that we include Baker and Wurgler's investor sentiment as a simple control variable while Mian and Sankaraguruswamy include it as an interaction term depending on whether the earnings surprise is positive or negative.

from pre-holiday close to post-holiday open.[31] Nevertheless, if announcement firms tend to be highly shorted firms, intensive buying pressures from covering short trades prior to major holidays can move stock prices up, causing a more favorable market reaction. To test the short selling hypothesis, we include a measure of short-selling activities, *SIR*, to equation (3.2):

$$AR = \beta_1 Preholiday + \beta_2 SIR + [Controls] + FF30\ Industry\ fixed\ effects + \varepsilon \quad (3.4)$$

The short interest ratio (*SIR*) is defined as the total number of shares shorted divided by the number of shares outstanding, both measured in the prior month. The short interest data are from archived exchange releases, shortsqueeze.com, and Compustat and cover the period 1988 through 2011.

We report the estimates in Table 10, Panel C. Again, we continue to observe significant, positive coefficients on *Preholiday* similar to our baseline estimations. For *SIR*, the evidence is mixed. In several models we observe a significant negative coefficient, suggesting that highly shorted stocks on average experience *lower* market reactions than less shorted stocks across different firm announcements. This is inconsistent with the short-sale-based explanation for the pre-holiday effect but consistent with prior literature suggesting that high short interest is bad news for stock returns in general (e.g., Desai et al. 2002). Thus, our evidence does not support the hypothesis that the pre-holiday firm announcement effect is caused by short sellers covering positions prior to holidays.

Therefore, the evidence does not support alternative explanations for the pre-holiday firm announcement effect based on aggregate market performance, Baker and Wurgler's (2007) investor sentiment measure, or short selling activity.

3.4.4 Frequency of events on pre-holiday trading days

The main estimations do not support the adverse selection hypothesis (H3) because abnormal announcement reactions for all events, all acquisitions, and all earnings are not lower on pre-holiday trading days as compared with ordinary days. However, such an effect could be obscured by a reduced negative effect due to limited attention or uplifted mood. Thus, we test for adverse selection more directly by testing whether unfavorable events occur on pre-holiday trading

[31] This explanation, however, would only apply to the day immediately prior to a holiday in which the market is closed. Our sample includes the two days prior to a holiday and includes three holidays in which the market remains open.

days relatively more frequently than favorable events. The underlying rationale is that firms might try to reduce the negative reaction to bad news by delivering the announcement when investors are not paying attention and / or are in a positive mood. If managers are more likely to announce bad news immediately prior to holidays, we would expect that unfavorable corporate announcements disproportionately fall on pre-holiday trading days relative to ordinary trading days. If this were the case, relative to the percentage of pre-holiday trading days in a year, a greater percentage of unfavorable announcements would fall on pre-holiday trading days.

In Table 11, Panel A, the first column presents the percentage of pre-holiday trading days each year. The subsequent columns report the excess percentage of pre-holiday corporate announcements each year. The excess percentage is calculated as the difference between the percentage of pre-holiday corporate announcements and the percentage of pre-holiday trading days in the year. For example, in 2012, pre-holiday trading days make up 11.20% of total trading days during the year. Reading from the next column, the excess frequency of 0.30% for "All favorable" events indicates that favorable events are slightly more likely to be announced on a pre-holiday trading day; i.e. 11.5% of favorable announcements during 2012 are made on pre-holiday trading days. The bottom row tests whether the differences are different from zero using a bootstrapping procedure of 1,000 draws. Interestingly, a majority of the corporate announcements are made less frequently on pre-holiday trading days relative to the percentage of pre-holiday trading days in a year. Managers appear to avoid announcing on pre-holiday trading days for both favorable (–1.30%, *t*-statistic = –3.64) and unfavorable events (–0.80%, *t*-statistic = –1.97). Further, the tendency to avoid pre-holiday trading days is slightly more pronounced for favorable events, suggesting that perhaps managers tend to announce more bad news *relative to good news* prior to a holiday, which would support the adverse selection argument.

Panel B more closely examines this question by statistically comparing the percentage of unfavorable pre-holiday announcements with the percentage of favorable announcements. As before, we test for the statistical significance of the differences using a bootstrapping procedure. The first row shows that pre-holiday firm announcements of unfavorable corporate events are 0.51% more likely than those of favorable corporate events and that this difference is statistically significant; however, the subsequent rows show that this effect is driven by earnings announcements. The difference between the percentage of negative and positive earnings surprises is partially explained by the fact that many pre-holiday trading days fall on Fridays, consistent

with DellaVigna and Pollet (2009) who find that negative earnings surprises are more common on Fridays. Unreported tests show that when Fridays are excluded, the difference between negative and positive earnings surprises is reduced by 0.15% yet remains statistically significant at the 5% level. The difference between the percentage of SEOs and share repurchases is positive, but statistically insignificant, while the difference between the percentage of unfavorable and favorable acquisitions is negative and statistically insignificant.[32] Thus, this table provides weak evidence at best for the adverse selection hypothesis.

3.4.5 Gallup Daily U.S. Mood Index

The main regression results establish that improved investor mood prior to holidays is the most plausible driver behind the pre-holiday firm announcement effect. This section provides more direct evidence on the link between investor mood and holidays. Specifically, we use the Gallup Daily U.S. Mood data based on Gallup-Healthways Well-Being Index as a gauge for Americans' mood and examine its variation across pre-holiday trading days versus ordinary trading days.[33]

Starting in 2008, the U.S. Mood index tracks two daily measures of Americans' mood. First, it tracks the daily percentage of Americans who, reflecting on the day before they were surveyed, reported that they experienced a lot of happiness and enjoyment without a lot of stress and worry (*Happy*). Second, it tracks the daily percentage of Americans who, reflecting on the day before they were surveyed, say that they experienced worry and stress without a lot of happiness and enjoyment (*Worry*). Daily data are based on telephone interviews with approximately 500 randomly sampled adults.[34] Since the survey participants are asked specifically about their happiness on the previous day, we use the next day's survey result as the level for the current day.[35] Moreover, we construct a measure of *Happy – Worry* (*Happy* minus *Worry*) to capture the net percentage of Americans who reported being happy as opposed to being worried or stressed.

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[32] In further untabulated results, we re-estimate our logistic regression in Table 2 with an *Unfavorable* dummy variable which equals one if the corporate event is an SEO, unfavorable acquisition, or negative earnings surprise. When all corporate announcements are aggregated, the Unfavorable coefficient is positive and statistically significant, suggesting that an unfavorable corporate event is more likely to be announced on a pre-holiday trading day. When earnings announcements are omitted from our sample, however, the Unfavorable coefficient is statistically insignificant, indicating that the propensity to announce bad news on pre-holiday trading days is confined to the earnings sub-sample.

[33] http://www.gallup.com/poll/106915/gallup-daily-us-mood.aspx

[34] The respondents are all aged 18 and older. The survey includes cell phone users and Spanish-speaking respondents from all 50 states and the District of Columbia, and covers many standard demographics, such as race, religion, income, education, employment status, occupation, and household density.

[35] In unreported tests, we find similar results if we conduct all of our analysis using the current day's result as the happiness level for the current day.

Since Gallup data begins in January 2008, our sample is shortened to a more recent period 2008-2012. We have data available from January 2, 2008 to November 2, 2012. Over this sample period, average values on trading days of *Happy*, *Worry*, and *Happy – Worry* are 46.81, 11.50, and 35.32, respectively. This means that on ordinary days 46.81% of people that they experience a lot of happiness and enjoyment without a lot of worry and stress, 11.50% of people experience a lot of worry and stress without a lot of happiness and enjoyment, and 35.32% is the mean difference between *Happy* and *Worry*.

In Figure 3, we examine the three measures of mood (*Happy*, *Worry*, *Happy – Worry*) on pre-holiday trading days of each holiday and ordinary trading days. The bars depict the mean values of a given measure on the pre-holiday trading days minus the mean value on ordinary trading days. For each of the 12 holidays, the mean values are obtained by averaging the daily measures that fall in pre-holiday trading days for that holiday.[36]

Shown in Figure 3A, we observe that values of *Happy* are always higher for pre-holiday trading days of each of the 12 holidays as compared with ordinary days, while in Figure 3B, the values of *Worry* are universally lower. The resulting values of *Happy – Worry* in Figure 3C are therefore always higher for pre-holiday trading days than ordinary trading days. The most dramatic examples are Thanksgiving and Christmas, where 15.98% and 19.18% *more* people report that they experienced happiness and enjoyment and 6.70% and 8.00% *less* people report that they experienced worry and stress. The resulting average *Happy – Worry* level is 22.68% and 27.18% higher for trading days prior to Thanksgiving and Christmas respectively as compared to ordinary trading days. Even for the least dramatic differences, St. Patrick's Day and Good Friday/Easter, the resulting average *Happy – Worry* level is 0.89% and 0.38% higher immediately prior to St. Patrick's Day and Good Friday/Easter respectively as compared with ordinary days.

The Gallup Daily U.S. Mood data has a clear day of the week effect. *Happy* values are the lowest on Mondays and the highest on Fridays, while *Worry* values are the highest on Mondays and the lowest on Fridays. The average values of *Happy – Worry* for each day of the week are 31.55% for Mondays, 32.37% for Tuesdays, 32.26% for Wednesdays, 36.13% for Thursdays, and 47.75% for Fridays.[37] Since pre-holiday trading days fall on Thursdays and Fridays for six out of

[36] Gallup does not report data from December 30-31, 2008, December 30-31, 2009, December 29-31, 2010, and December 29-31, 2011, so we do not have Gallup *Happy* or *Worry* values for pre-holiday trading days prior to New Year's Day.
[37] Since the survey participants are asked specifically about their happiness on the previous day, we use the next day's survey result as the level for the current day.

the 13 holidays, we must verify that people are indeed happier and less worried on pre-holiday trading days due to the anticipation of the holiday, not simply because of the day of the week. Therefore, we calculate *Abnormal Happy*, *Abnormal Worry,* and *Abnormal (Happy – Worry)* as the given Gallup value minus the value on the same day of the prior week.[38] Thus, *Abnormal Happy*, *Abnormal Worry,* and *Abnormal (Happy – Worry)* capture the *Happy*, *Worry*, and *Happy – Worry* levels after controlling for the predictable day of the week effect. We depict the values of *Abnormal Happy*, *Abnormal Worry,* and *Abnormal (Happy – Worry)* in Figures 2D, 2E, and 2F, but we do not take the difference between the Gallup values on pre-holiday trading days and ordinary days because the abnormal Gallup values are already differenced. Instead, we report the average value of *Abnormal Happy*, *Abnormal Worry,* and *Abnormal (Happy – Worry)* for ordinary days alongside the mean values for pre-holiday trading days.

Shown in Figure 3D, we observe that values of *Abnormal Happy* are positive for all holidays except Memorial Day, while in Panel 2E, the values of *Abnormal Worry* are negative for all holidays except Memorial Day and Father's Day. The resulting values of *Abnormal (Happy – Worry)* in Figure 3F are therefore higher for pre-holiday trading days than ordinary trading days for all holidays except Memorial Day. While Memorial Day is often celebrated with festive picnics and parades in the U.S., Memorial Day is also a day to remember veterans who have died in prior wars and current armed forces fighting for American values across the globe. Thus, this remembrance strikes a solemn tone to a generally happy holiday, which could explain why Americans report higher levels of Worry on trading days prior to Memorial Day. Nevertheless, when considering all pre-holiday trading days, *Abnormal Happy* levels are mostly higher, *Abnormal* Worry levels are mostly lower, and *Abnormal (Happy – Worry)* levels are mostly higher on pre-holiday trading days relative to ordinary trading days.

Next, we take an event-time approach and track Americans' mood each day in the days surrounding a holiday. Figures 3A and 3B depicts mean daily *Happy – Worry* and *Abnormal (Happy – Worry)* from trading days 15 days prior to until 15 days after a holiday. All holidays are included in this analysis. We have between 36 to 60 observations for each trading day with the exception of Day 0, for which we have less than 10 observations. The market is only open on Day 0 if Valentine's Day, St. Patrick's Day, or Halloween falls on a weekday. Since the number of observations is so limited, we omit Day 0 from our plot. One can see a clear upward trajectory

[38] If the Gallup value was not available the same day of the prior week, we use the Gallup value of two weeks prior.

beginning on Day –2 and culminating on Day –1 where the *Happy – Worry* is substantially higher than the *Happy – Worry* values on any of the other trading days in the time window. This analysis is clouded, however, by the day of the week effect, which is clearly seen in the spikes in *Happy – Worry* every five days. Therefore, we also examine the day-by-day pattern in *Abnormal (Happy – Worry)* during the same time window. When day of the week effects are accounted for, people appear to be in the best mood two trading days prior to a holiday as the highest *Abnormal (Happy – Worry)* value is on Day –2. Yet, the *Abnormal (Happy – Worry)* value on Day –1 is also quite high. This analysis provides justification for our decision to classify two trading days before a holiday as pre-holiday trading days, because Americans' mood appears to be much more favorable during the two trading days before a holiday.

To explore a more direct connection between mood and the pre-holiday firm announcement effect, we study the Gallup data in the context of the sub-sample of corporate announcements that overlap the Gallup data (January 2008 to November 2012). Specifically, we report the average abnormal return upon firm announcements and the mean *Happy*, *Worry*, *Happy – Worry, Abnormal Happy, Abnormal Worry,* and *Abnormal (Happy – Worry)* for pre-holiday trading days versus ordinary trading days. To test whether the differences in abnormal returns or mood measures are significant, we calculate the sample *t*-statistics based on bootstrapped standard errors that help to account for cross-correlation.

Table 12 reports the results. Consistent with a mood effect associated with this result, people are 3.12% happier (*t*-statistic = 37.47) and –1.46% less worried (*t*-statistic = –48.32) on pre-holiday versus ordinary trading days. The aggregate *Happy – Worry* level is 4.58% higher on pre-holiday trading days (*t*-statistic = 42.16). After controlling for the day of the week effect, *Abnormal Happy* levels are 1.56% higher, *Abnormal Worry* levels are 0.49% lower, and *Abnormal (Happy – Worry)* levels are 2.05% higher on pre-holiday versus ordinary trading days. Examining each type of corporate announcement separately, the general pattern is that *Happy* and *Abnormal Happy* levels are significantly higher, *Worry* and *Abnormal Worry* levels are significantly lower, and *Happy – Worry* and *Abnormal (Happy – Worry)* levels are significantly higher on pre-holiday than ordinary trading days.

For all corporate announcements, the mean abnormal return on pre-holiday trading days is 0.57% higher than on ordinary trading days (*t*-statistic = 4.13). This is consistent with our findings (0.16%, *t*-statistic = 2.70) for the full sample period (1984-2012) in our main tests, although the

size of the effect is considerably larger in magnitude (0.57% versus 0.16%). This evidence suggests that the pre-holiday firm announcement effect is stronger in the most recent years. The results hold when we group events by favorable or unfavorable types using the same partitions as before. For favorable events, the mean AR on pre-holiday trading days is 0.51% higher than on ordinary trading days (t-statistic = 3.48), and for unfavorable events the mean AR on pre-holiday trading days is 0.79% higher than on ordinary trading days (t-statistic = 2.85). Across individual event types, the evidence is sometimes insignificant, likely due to limited sample size.

The Table 12 results demonstrate that the pre-holiday firm announcement effect remains strong in the last several years of the full sample period, and importantly, during this latter period people exhibit an uplifted mood on pre-holiday trading days. With the Gallup data, we provide novel evidence linking individuals' mood to investors' perception of corporate announcements.

3.5 The Pre-holiday Effect versus the Pre-holiday Firm Announcement Effect

In this section, we examine the extent to which the pre-holiday firm announcement effect that we document is related to the well-known pre-holiday effect at the aggregate level. Although both might be driven by uplifted pre-holiday investor mood, the two effects might not share common strength over time. The aggregate pre-holiday effect has been known for more than two decades and thus is more likely to be subject to arbitrage activities. Consistent with this assertion, Ariel (1990) documents a significant pre-holiday effect for the CRSP value-weighted index from 1963-1982; however, Chong et al (2005) show that the pre-holiday effect has actually declined in the U.S. in the two recent decades. In contrast, the pre-holiday firm announcement effect may be less known and thus may remain significant even in recent years.

If the two effects differ, we also want to ascertain whether the difference arises from the choice of holidays. Ariel (1990) examines eight holidays which result in market closings: New Year's Day, Presidents' Day, Good Friday/Easter, Memorial Day, Fourth of July, Labor Day, Thanksgiving, and Christmas. Our sample includes five other holidays that do not result in market closing: Valentine's Day, St. Patrick's Day, Mother's Day, Father's Day, and Halloween.

In Table 13, Panel A, we present OLS estimations to test whether Ariel's finding for the aggregate market holds for the time period covered by our sample, 1984-2012. The dependent variable is the CRSP value-weighted index return. In addition to our measure *Preholiday*, we create another dummy for comparison with Ariel's work: *Preholiday (Ariel)*, which is defined

similarly to *Preholiday* but based on one of the eight holidays in Ariel's sample. We also divide the sample into the time period before the publication of Ariel's paper (1984-1989) and subdivide the remaining later years into roughly two decades (1990-2000 and 2001-2012) to examine the persistence of the pre-holiday effect over time. We compare *Preholiday (Ariel)* with our definition of *Preholiday*, which includes five additional holidays. The *Preholiday (Ariel)* coefficient is positive, but not statistically significant in any time period.[39] Our *Preholiday* coefficient, however, is positive and statistically significant during the earlier part of our sample.[40] Untabulated results indicate that the statistical significance of the *Preholiday* coefficient from 1990-2000 is driven solely by a strong pre-holiday effect in the year 2000. If the year 2000 is omitted, the *Preholiday* coefficient is statistically insignificant during the period 1990-1999. The *Preholiday* coefficient is not statistically significant during 2001-2012. Panel A demonstrates that the aggregate pre-holiday effect has weakened over time so that the aggregate market performance on pre-holiday trading days is not statistically different from its performance on ordinary days during the last decade. The decline in recent years of the aggregate pre-holiday effect may be due to arbitrageurs exploiting the known anomaly.

Next, we study the time-variation of the pre-holiday firm announcement effect. Table 13, Panel B reports the same specification in Table 9 using equation (2) for all corporate announcements during the periods 1984-2012, 1984-1989, 1990-2000, and 2001-2012. The dependent variable is the one day abnormal return of the imputed announcement date. Again, we include both *Preholiday* and *Preholiday (Ariel)* for completeness. The *Preholiday* coefficient is positive across all specifications and statistically significant at the 5% level for all periods but 1990-2000. *Preholiday (Ariel)* has a significant coefficient in all periods except 1984-1989. Comparing the magnitudes of the *Preholiday* and *Preholiday (Ariel)* coefficients, the *Preholiday (Ariel)* coefficient is more than double the *Preholiday* coefficient during the entire time period and during 2001-2012, suggesting that the firm-level results would be considerably stronger if we solely focus on the eight holidays in Ariel's study.

Most notably, the pre-holiday firm announcement effect is statistically significant in the most recent decade but the aggregate pre-holiday effect has disappeared since at least 2001. These

[39] Ariel (1990) finds that the pre-holiday effect is positive, but statistically insignificant during the period 1983-1986.
[40] The insignificant result remains if we strictly follow Ariel (1990) by defining the pre-holiday window as the one trading day prior to the holidays. Thus, the difference between the results associated with *Preholiday* and *Preholiday (Ariel)* in Panel A is mainly driven by the inclusion of five additional holidays.

results suggest that although the well-known aggregate pre-holiday effect has dissipated over time, the pre-holiday firm announcement effect remains distinctly significant in recent years.

3.6 Conclusion

Woven into the fabric of American culture, holidays influence individuals' social gatherings, buying habits, and even investing behavior. While the aggregate stock market's high returns before major holidays is well-known, our paper documents that investors react differently to firm-specific announcements made before a holiday. We find that pre-holiday corporate event announcements of share repurchases, SEOs, acquisitions, and quarterly earnings are viewed significantly more positively than announcements made on ordinary trading days, after controlling for a host of firm characteristics, industry effects, as well as the information content of acquisitions and earnings announcements. We further show that this pre-holiday firm announcement effect is not explained by an up market on the given day, general monthly investor sentiment, or short activity, nor is it explained by firm adverse selection or investor limited attention prior to major holidays.

Our evidence is most consistent with the idea that upcoming holidays foster a happier mood among Americans, who in turn exhibit an optimism bias in their perception of new firm-specific information. Because optimistic investors view firm announcements in a rosier light, they consequently overreact to positive information and underreact to negative information. Our Gallup survey data (available 2008-2012) confirms that Americans are happier and less worried within two trading days prior to major U.S. holidays. During the same period, we find that investors continue to overreact to favorable corporate announcements and underreact to unfavorable announcements.

By studying how investors in a holiday spirit before major holidays affects market reactions to corporate announcements, we establish a novel connection between three branches of financial research on investor mood, the pre-holiday effect, and stock price reactions to corporate announcements. We build on Frieder and Subrahmanyam's (2004) mood-based explanation for the preholiday effect in the aggregate market by demonstrating that, under the influence of an upbeat holiday mood, investors view firm-specific events through rose-colored glasses. Our findings have important implications for the often-postulated view that the short-term stock price reaction to corporate events provides a reliable, rational estimate of the information content of firm

announcements. Our results suggest that cultural holidays and investor mood can play a nontrivial role in reactions to pre-holiday corporate events.

APPENDIX A

VARIABLE DEFINITIONS FOR "CULTURAL NEW YEAR HOLIDAYS AND STOCK RETURNS AROUND THE WORLD"

B/MRank: The country-specific rank based on the book-to-market equity (B/M). The book-to-market equity is defined as the balance sheet value of the common equity divided by the market value of common equity. Each month, stocks from the same country are ranked into 20 groups based on B/M from lowest to highest with the lowest group assigned a rank of zero and the highest assigned a rank of 19.

CNY: Cultural New Year (*CNY*) month dummy variable. A month is classified as a CNY month if the majority of the daily trading day window (–4, +4) surrounding the start of the cultural New Year falls in that particular month.

CNY days: The *CNY days* dummy variable that equals one if the date falls within the (–4, +4) trading day window surrounding the cultural New Year of a given country.

IndCltRank: The composite individual investor clientele rank index that incorporates *PrcRank*, *IvolRank*, and *MaxRank*. *PrcRank* is the country-specific rank based on the closing price (*Prc*) at the end of the previous month. *IvolRank* is the country-specific rank based on the previous month's idiosyncratic volatility. Idiosyncratic volatility (*Ivol*) is defined as the standard deviation of the residual of the previous month's daily returns regressed on the market's returns, where the market is proxied by the country's Datastream total market index. *MaxRank* is the country-specific rank based on the previous month's maximum daily return (*Max*). The ranking variables are constructed monthly by sorting stocks from the same country into 20 groups based on *Ivol*, *Prc*, and *Max*. Stocks in the lowest group of *Ivol* and *Max* and the highest group of *Prc* are assigned a rank of zero, while stocks in the highest group of *Ivol* and *Max* and the lowest group of *Prc* are assigned a rank of 19. The average of the three rankings is denoted *IndClt*. Then stocks are sorted into 20 groups based on *IndClt*. Stocks with the highest *IndClt* measure are assigned the highest rank (*IndCltRank* =19) and are the most attractive to individual investors. Stocks with the lowest *IndClt* measure are assigned the lowest rank (*IndCltRank* = 0) and are the least attractive to individual investors.

January: January dummy variable. January equals one if that month is January.

JNY days: The January 1st window dummy that equals one if the date falls within the (–9, +9) trading day window surrounding the January 1st.

LagRet: The monthly return of the previous month.

ZeroProp: The proportion of trading days with returns equal to exactly zero in the previous month.

Momentum: Compounded return of month $t - 12$ through $t - 2$.

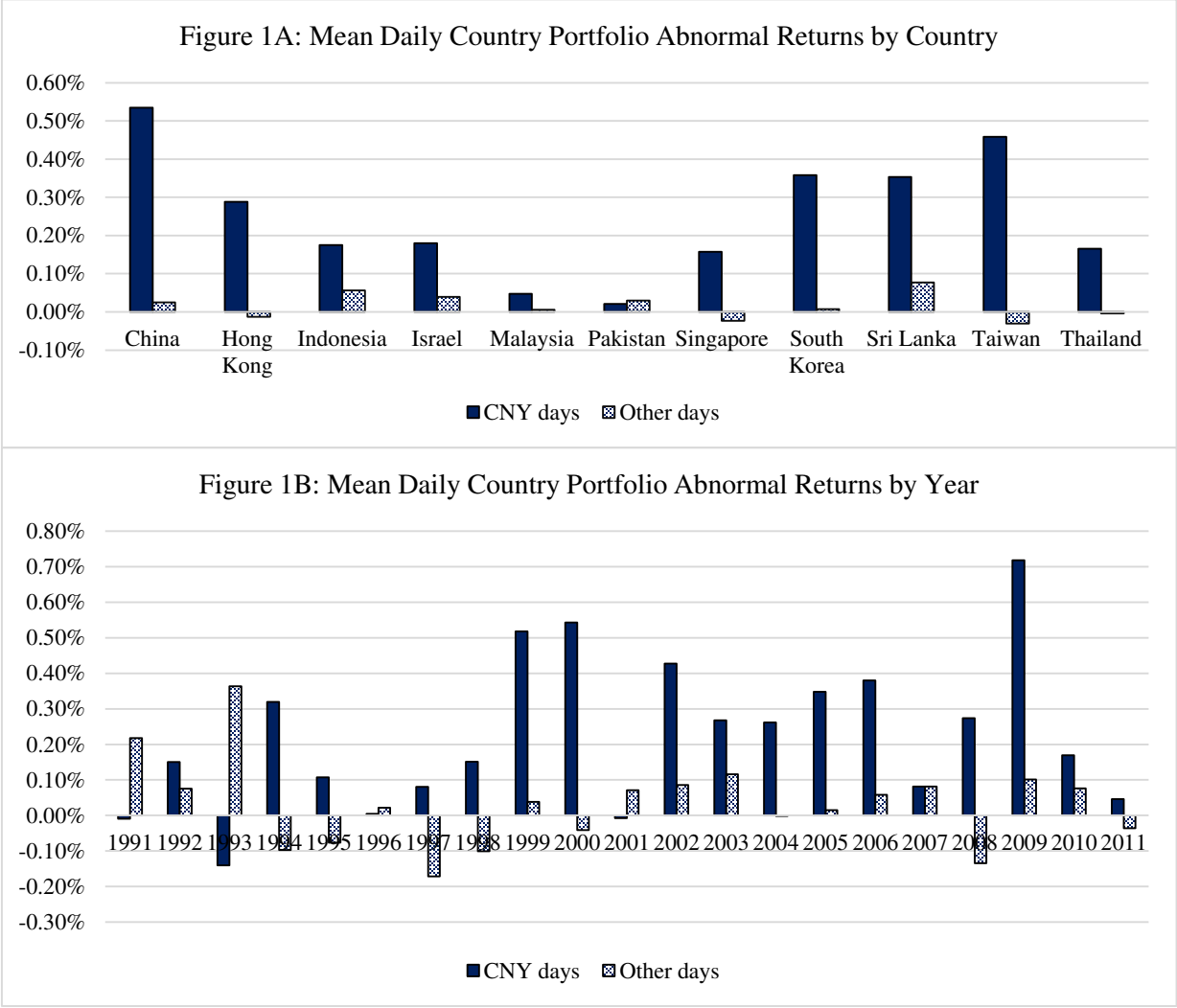
MVRank: The country-specific rank based on the market value at the end of the previous month. Market value (MV) is the closing price per share multiplied by shares outstanding. Each month, stocks from the same country are ranked into 20 groups based on MV from lowest to highest with the lowest group assigned a rank of zero and the highest assigned a rank of 19.

Solemn holidays: The *Solemn holidays* dummy variable equals one if the return falls within the (-4,+4) trading day window surrounding a holiday associated with a negative or less positive mood in a given country.

APPENDIX B

FIGURE AND TABLES FOR "CULTURAL NEW YEAR HOLIDAYS AND STOCK RETURNS AROUND THE WORLD"

Figure 1. Mean Daily Country Portfolio Returns around Cultural New Year's day Versus Other Trading Days by Country and by Year



This figure plots mean daily abnormal returns of the value-weighted country portfolios during the cultural New Year's day window versus other trading days. The cultural New Year's day window (CNY days) refers to the (–4,+4) trading day window surrounding the cultural New Year's day, presented in Table I. Other trading days (Other days) exclude those in the cultural New Year's day window as well as the (–9,+9) trading days surrounding January 1st. The country portfolio is a value-weighted market portfolio of all stocks from that country in our sample. Abnormal returns are calculated using the world market model. Figure 1A depicts the mean daily abnormal returns by country averaged across all years and Figure 1B depicts the mean daily abnormal returns by year averaged across all countries. The paired difference in mean daily returns across all country-year observations is 0.23% and the associated bootstrapped *t*-statistic is 5.43 (*p*-value < 0.01). The sample period starts between 1991 to 1996, depending on the country, and ends in 2011.

Table 1. Country Profiles

This table reports the profiles of our sample countries. Panel A provides information on each country's economic environment and institutional settings. The *% of World Population* is a country's population as a percentage of the world's total population recorded in CIA 2013 *World Factbook*. The *% of World Mkt Cap* is the country's total market capitalization as a percentage of the world's total market capitalization recorded in the 2010 U.S. Census International Statistics. *GDP per Capita* is the gross domestic product per capita as reported in the CIA 2013 *World Factbook*. *Institutional ownership (%)* reports the time-series average total institutional ownership as a fraction of stock market capitalization by country from 2000-2010 (Faias, Ferreira, Matos, and Santa-Clara 2012). *Capital Gains Tax* indicates whether a separate capital gains tax is imposed on domestic securities. *Short selling* indicates whether short selling was allowed at least for some time during the sample period. *Employee bonus* indicates whether employee bonuses are paid before the cultural New Year's day. In Panel B, we report the cultural *New Year Holiday* and its time of year based on the Western calendar. The *% Population Celebrate* is the percentage of the population that belongs to the cultural group who traditionally celebrates the cultural New Year holiday. We also report the number of firm-month observations, the number of unique firms, and the starting year of the data.

Panel A: Comparison of different markets

Market	% of World Population	% of World Mkt Cap	GDP per Capita	Institutional Ownership (%)	Employee Bonus	Short Selling	Capital Gains Tax
China	18.65	8.41	$9,800	12.70	Yes	No	No
Hong Kong	0.10	4.79	$52,700	12.00	Yes	Yes	No
Indonesia	3.54	0.64	$5,200	11.30	No	No	Yes
Israel	0.11	0.39	$36,200	27.70	Yes	Yes	Yes
Malaysia	0.42	0.73	$17,500	6.70	No	Yes	No
Pakistan	2.72	0.07	$3,100	N.A.	No	No	Yes
Singapore	0.08	0.65	$62,400	15.30	Yes	Yes	No
South Korea	0.69	1.92	$33,200	16.60	Yes	Yes	Yes
Sri Lanka	0.31	0.04	$6,500	N.A.	Yes	No	No
Taiwan	0.33	1.42	$39,600	13.50	Yes	Yes	No
Thailand	0.95	0.49	$9,900	12.10	No	Yes	No

Panel B: Cultural New Year holidays and data summary

Market	New Year Holiday	New Year in Calendar Time	% Population Celebrate	Firm-month Obs.	Unique # firms	Starting Year of Data
China	Chinese	January or February	91.50%	195,619	1,732	1994
Hong Kong	Chinese	January or February	95.00%	142,599	1,138	1993
Indonesia	Islamic	Varies	86.10%	39,337	374	1992
Israel	Jewish	September or October	75.60%	73,947	514	1991
Malaysia	Islamic	Varies	60.40%	125,307	887	1991
Pakistan	Islamic	Varies	95.00%	30,471	231	1994
Singapore	Chinese	January or February	76.80%	58,688	556	1994
South Korea	Korean	January or February	99.96%	183,196	1,490	1995
Sri Lanka	Sinhalese	Mid-April	69.10%	32,346	218	1991
Taiwan	Chinese	January or February	98.00%	155,481	1,403	1996
Thailand	Thai	Mid-April	94.60%	71,853	542	1992

Table 2 Country Portfolio Daily Return Regressions

This table reports the estimates of panel regressions of country portfolio daily returns on the cultural New Year's days dummy variable (*CNY days*) and the January 1st New Year's days dummy variable (*JNY days*). *CNY days* equals one if the return falls within the given trading day window surrounding the cultural New Year's day for that particular country. *PreCNY days* equals one if the return falls in the first half of the given trading day window around the cultural New Year's day for that particular country and *PostCNY days* equals one if the return falls in the second half of the trading day window. *JNY days* equals one if the return falls within the (–9,+9) trading day window surrounding January 1st (Ritter 1988). The dependent variable is the world market-adjusted daily return of the eleven value-weighted country portfolios. Abnormal returns are calculated using the world market model. The last two specifications report a subsample analysis for the earlier and later periods (1991-2001 and 2002-2011 respectively) and uses the (-4,+4) CNY trading day window. All returns are in percent. The *t*-statistics reported in parentheses are based on standard errors adjusted for clustering by date. Country fixed effects are included in all regressions. The symbol *, **, and *** indicates statistical significance at the 10%, 5%, and 1% level, respectively. The sample period starts between 1991 to 1996, depending on the country, and ends in 2011.

Panel A: Cultural New Year effect in different CNY days windows

	Trading day window around cultural New Year's day:									
	(-3,+3)		(-4,+4)		(-5,+5)		(-7,+7)		(-9,+9)	
CNY days	0.23***		0.21***		0.18***		0.13***		0.10**	
	(4.40)		(4.68)		(4.35)		(3.58)		(2.96)	
PreCNY days		0.31***		0.27***		0.18***		0.12**		0.07*
		(4.77)		(4.55)		(3.36)		(2.40)		(1.69)
PostCNY days		0.10		0.12*		0.15**		0.13**		0.11**
		(1.25)		(1.83)		(2.49)		(2.47)		(2.38)
JNY days	0.09**	0.09**	0.09**	0.09**	0.09**	0.09**	0.09**	0.09**	0.09**	0.09**
	(2.41)	(2.40)	(2.45)	(2.43)	(2.45)	(2.43)	(2.43)	(2.42)	(2.39)	(2.40)
R^2	0.12%	0.12%	0.12%	0.12%	0.11%	0.11%	0.10%	0.10%	0.09%	0.09%
N	50,436	50,436	50,436	50,436	50,436	50,436	50,436	50,436	50,436	50,436

Panel B: Cultural New Year effect in subsample analysis with (-4,+4) CNY days window

	Earlier 1991-2001			Later 2002-2011		
CNY days	0.19**		0.06	0.23***		0.23**
	(2.74)		(0.55)	(3.89)		(2.72)
Pre-CNY days		0.31***	0.25*		0.23***	0.01
		(3.83)	(1.86)		(2.71)	(0.07)
Post-CNY days		0.05			0.19**	
		(0.45)			(2.28)	
JNY days	0.06	0.06	0.06	0.13***	0.13***	0.13***
	(0.93)	(0.92)	(0.93)	(2.82)	(2.81)	(2.82)
R^2	0.09%	0.11%	0.11%	0.22%	0.21%	0.22%
N	23,816	23,816	23,816	26,620	26,620	26,620

Table 3. Day of the Week and Solemn Holidays Analyses

This table reports the estimates of panel regressions of country portfolio daily returns on the cultural New Year's days (*CNY days*) dummy variable, the January 1st New Year's days dummy variable (*JNY days*), day of the week dummy variables, and the *Solemn holidays* dummy variable. *CNY days* equals one if the return falls within the (-4,+4) trading day window surrounding the cultural New Year's day for that particular country. *JNY days* equals one if the return falls within the (–9,+9) trading day window surrounding January 1st. We control for the day of the week effects using *Sunday, Monday, Tuesday, Wednesday, Thursday,* and *Friday* dummy variables. *Solemn holidays* equals one if the return falls within the (-4,+4) trading day window surrounding a holiday associated with a less positive or negative mood in that particular country. The last row of Panel A indicates whether employees receive a holiday bonus (cash infusion) before the cultural New Year's day. The last row of Panel B indicates whether the unhappy holiday coincides with a trading break. The dependent variable is the abnormal daily return of the eleven value-weighted country portfolios. All returns are in percent. Year fixed effects are included in all regressions. The symbol *, **, and *** indicates statistical significance at the 10%, 5%, and 1% level, respectively. The sample period starts between 1991 to 1996, depending on the country, and ends in 2011.

Panel A: Day of the week analysis

	China	Hong Kong	Indonesia	Israel	Malaysia	Pakistan	Singapore	South Korea	Sri Lanka	Taiwan	Thailand
CNY days	0.52**	0.30**	0.11	0.14	0.04	-0.05	0.18**	0.28*	0.29*	0.49***	0.17*
	(2.41)	(2.56)	(0.90)	(1.15)	(0.24)	(-0.34)	(2.28)	(1.80)	(1.89)	(2.90)	(1.67)
JNY days	0.09	-0.01	-0.05	0.16*	0.11	0.23	0.09	0.01	0.17	0.16*	0.12*
	(0.77)	(-0.06)	(-0.61)	(1.86)	(0.91)	(1.58)	(0.82)	(0.07)	(1.54)	(1.70)	(1.82)
Sunday				0.07							
				(1.37)							
Monday	-0.06	-0.06	-0.28***	0.00	-0.31***	-0.13	-0.29***	-0.04	-0.11*	-0.09	-0.33***
	(-0.56)	(-1.20)	(-3.41)	(0.05)	(-3.38)	(-1.35)	(-4.16)	(-0.53)	(-1.77)	(-0.85)	(-4.48)
Tuesday	-0.25**	-0.13	-0.10	0.01	-0.14	-0.20***	-0.15	-0.13	-0.14**	-0.26***	-0.16*
	(-2.42)	(-1.20)	(-1.06)	(0.25)	(-1.10)	(-3.54)	(-1.56)	(-1.22)	(-2.50)	(-3.11)	(-1.76)
Wednesday	0.19**	0.04	0.12*	0.02	0.09	0.13***	0.07	0.05	0.06	0.05	0.10*
	(2.49)	(0.81)	(1.69)	(0.43)	(1.10)	(3.13)	(1.45)	(0.95)	(1.07)	(0.87)	(1.69)
Thursday	-0.41***	-0.09	0.06	0.02	-0.08	-0.09*	-0.06	-0.02	0.08**	-0.06	-0.10
	(-3.80)	(-1.37)	(0.61)	(0.40)	(-0.91)	(-1.75)	(-1.14)	(-0.17)	(2.13)	(-0.88)	(-1.45)
Friday	-0.11	0.05	0.01		0.08	-0.09	0.05	-0.03	0.28***	0.03	0.03
	(-1.11)	(0.98)	(0.10)		(1.05)	(-1.03)	(0.85)	(-0.34)	(5.41)	(0.62)	(0.64)
R^2	0.59%	0.35%	0.59%	0.18%	0.77%	0.33%	0.84%	0.14%	1.38%	0.78%	0.97%
Observations	4,377	4,695	4,888	5,136	5,191	4,302	4,601	4,174	5,018	3,934	5,150
Cash Infusion?	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	No

Panel B: Solemn holidays analysis (excluding Sri Lanka)

	China	Hong Kong	Indonesia	Israel	Malaysia	Pakistan	Singapore	South Korea	Taiwan	Thailand
CNY days	0.52***	0.30**	0.18	0.18	0.05	-0.14	0.18**	0.29*	0.50***	0.17*
	(4.14)	(2.55)	(1.35)	(1.43)	(0.26)	(-0.86)	(2.29)	(1.84)	(2.97)	(1.67)
JNY days	0.10	-0.01	-0.05	0.16*	0.11	0.24	0.09	0.02	0.17*	0.12*
	(0.64)	(-0.09)	(-0.70)	(1.85)	(0.91)	(1.62)	(0.81)	(0.13)	(1.85)	(1.80)
Solemn holidays	0.22*	-0.10	-0.21	-0.08	-0.02	0.30**	-0.01	0.23*	0.31***	0.00
	(1.68)	(-1.13)	(-1.41)	(-0.41)	(-0.16)	(2.02)	(-0.07)	(1.76)	(2.47)	(-0.01)
Sunday				0.07						
				(1.38)						
Monday	-0.06	-0.07	-0.29***	0.00	-0.31***	-0.13	-0.29***	-0.04	-0.09	-0.33***
	(-0.45)	(-1.21)	(-3.44)	(0.04)	(-3.38)	(-1.32)	(-4.16)	(-0.53)	(-0.81)	(-4.48)
Tuesday	-0.25	-0.13	-0.10	0.01	-0.14	-0.20***	-0.15	-0.13	-0.26***	-0.16*
	(-1.47)	(-1.20)	(-1.06)	(0.25)	(-1.10)	(-3.53)	(-1.55)	(-1.23)	(-3.11)	(-1.76)
Wednesday	0.18**	0.04	0.13*	0.02	0.09	0.12***	0.07	0.04	0.03	0.10*
	(2.60)	(0.89)	(1.83)	(0.47)	(1.11)	(3.00)	(1.40)	(0.83)	(0.62)	(1.75)
Thursday	-0.41***	-0.09	0.06	0.02	-0.08	-0.09*	-0.06	-0.02	-0.06	-0.10
	(-4.96)	(-1.37)	(0.62)	(0.40)	(-0.91)	(-1.72)	(-1.14)	(-0.18)	(-0.87)	(-1.45)
Friday	-0.11	0.04	0.01		0.08	-0.08	0.05	-0.03	0.04	0.03
	(-1.30)	(0.96)	(0.09)		(1.05)	(-1.02)	(0.84)	(-0.33)	(0.69)	(0.64)
R^2	0.62%	0.36%	0.65%	0.18%	0.77%	0.44%	0.84%	0.19%	0.90%	0.97%
Observations	4,377	4,695	4,888	5,136	5,191	4,302	4,601	4,174	3,934	5,150
Solemn holidays trading break?	Yes	No	No	Yes	No	Yes	No	Yes	Yes	Yes

Table 4. Individual Stock Monthly Returns and the Cultural New Year Effect

This table reports estimates of panel regressions at the monthly individual stock level that test for the cultural New Year effect. The dependent variable is the monthly individual stock abnormal percentage return. Abnormal returns are calculated using the market model, where the market is the Datastream world market index and betas are calculated by regressing the monthly stock returns on the monthly world market index returns during the previous year. The key independent variable is the *CNY* dummy variable. *CNY* equals one if the majority of the daily trading day window (–4,+4) surrounding the cultural New Year falls in that particular month for that country in a given year. *January* is a dummy for the month of January. The control variables include the market capitalization rank (*MVRank*), book-to-market ratio rank (*B/MRank*), past one-month return (*LagRet*), past returns from month $t - 12$ through $t - 2$ (*Momentum*), and zero return proportion of the preceding month (*ZeroProp*) that measures illiquidity (Lesmond, Ogden, and Trzcinka 1999). All regressions include year fixed effects and the All Markets specification additionally includes country fixed effects. The *t*-statistics reported in parentheses are based on standard errors adjusted for clustering at the firm level. The symbol *, **, and *** indicates statistical significance at the 10%, 5%, and 1% level, respectively. The sample period starts between 1991 to 1996, depending on the country, and ends in 2011.

	All Markets	China	Hong Kong	Indonesia	Israel	Malaysia	Pakistan	Singapore	South Korea	Sri Lanka	Taiwan	Thailand
CNY	2.50***	8.11***	2.19***	-0.85*	-0.31	-0.74***	0.32	-1.56***	1.37***	4.43***	4.16***	0.18
	(30.83)	(70.01)	(8.10)	(-1.83)	(-0.87)	(-4.71)	(0.74)	(-7.09)	(5.57)	(6.40)	(28.60)	(0.72)
January	2.14***	-0.04	1.36***	0.11	7.29***	3.73***	5.49***	3.26	0.63**	10.77***	0.44**	2.58***
	(25.28)	(-0.32)	(5.23)	(0.24)	(13.16)	(17.92)	(9.95)	(11.38)	(2.14)	(11.91)	(2.03)	(8.22)
MVRank	-0.07***	-0.02***	-0.23***	-0.16***	-0.15***	0.00	-0.02	-0.07***	-0.03**	-0.24***	-0.03***	-0.04**
	(-16.77)	(-3.34)	(-12.53)	(-4.32)	(-4.93)	(0.06)	(-0.44)	(-3.86)	(-2.22)	(-5.62)	(-3.02)	(-2.11)
B/MRank	0.12***	0.04***	0.14***	0.14***	0.18***	0.13***	0.13***	0.09***	0.00	0.14***	0.19***	0.15***
	(27.98)	(7.37)	(8.07)	(4.12)	(7.54)	(12.41)	(4.43)	(4.78)	(-0.32)	(3.13)	(19.70)	(8.51)
LagRet	-0.18*	-4.91***	1.50***	3.56***	-4.28***	-5.33***	-5.08***	-2.35*	-4.59***	-1.77	-0.11***	2.98***
	(-0.89)	(-17.01)	(2.84)	(3.41)	(-4.92)	(-10.13)	(-4.38)	(-3.26)	(-8.11)	(-1.43)	(-0.28)	(3.75)
Momentum	-0.11***	-2.10***	-0.15**	-0.68***	-0.37	-0.39***	0.36	-1.04***	-0.46***	-0.09	0.07	-0.88***
	(-3.14)	(-26.97)	(-2.50)	(-3.07)	(-1.18)	(-3.65)	(1.63)	(-5.67)	(-2.97)	(-0.31)	(0.97)	(-6.94)
Zeroprop	1.14***	-4.49***	0.37	3.58***	0.47	0.31	1.86**	0.46	0.18	6.12***	1.09**	0.97**
	(7.79)	(-8.09)	(0.83)	(4.41)	(0.70)	(1.10)	(2.20)	(1.18)	(0.33)	(5.84)	(2.55)	(2.36)
R^2	1.69%	11.20%	1.85%	2.38%	5.35%	3.75%	5.27%	2.25%	1.74%	7.44%	2.87%	3.45%
Observations	836,555	177,712	115,951	26,101	31,921	102,551	15,012	47,504	105,592	12,808	144,377	57,026
Cash infusion?		Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	No

Table 5. The Cultural New Year Effect through an Individual Investor Clientele Channel

This table reports the results of panel regressions at the monthly individual stock level for the cultural New Year effect on stocks with an individual investor clientele. The dependent variable is the monthly individual stock percentage abnormal return. Abnormal returns are calculated using the market model, where the market is the Datastream world market index and betas are calculated by regressing the monthly stock returns on the monthly world market index returns during the previous year. The key independent variable is the interaction term between the cultural New Year month dummy (*CNY*) and the composite individual investor clientele rank (*IndCltRank*). *CNY* equals one if the majority of the daily trading day window (–4,+4) surrounding the cultural New Year's day falls in that particular month for that country in a given year. January is a dummy variable for the month of January. All regressions include the control variables identical to Table IV: the market capitalization rank, book-to-market ratio rank, past one-month return, past returns from month $t - 12$ through $t - 2$ (momentum), and zero return proportion of the preceding month that measures illiquidity (Lesmond, Ogden, and Trzcinka 1999). All regressions include year fixed effects and the All Markets specification additionally includes country fixed effects. The *t*-statistics reported in parentheses are based on standard errors adjusted for clustering at the firm level. The symbol *, **, and *** indicates statistical significance at the 10%, 5%, and 1% level, respectively. The sample period starts between 1991 to 1996, depending on the country, and ends in 2011.

	All Markets	China	Hong Kong	Indonesia	Israel	Malaysia	Pakistan	Singapore	South Korea	Sri Lanka	Taiwan	Thailand
CNY*IndCltRank	0.06***	0.32***	0.28***	-0.11	-0.17*	-0.10***	-0.32***	-0.18***	0.03	0.37***	0.29***	0.07
	(3.49)	(5.08)	(5.69)	(-1.32)	(-1.89)	(-3.03)	(-3.51)	(-4.21)	(0.73)	(2.66)	(4.24)	(1.45)
January*IndCltRank	0.06***	-0.03	-0.02	-0.15*	0.62***	0.18***	0.37**	0.16***	-0.01	0.36**	-0.06	0.04
	(3.42)	(-1.12)	(-0.32)	(-1.73)	(5.65)	(4.67)	(2.55)	(2.84)	(-0.23)	(2.48)	(-1.31)	(0.71)
CNY	0.33**	8.42***	-0.39	0.03	0.55	0.21	4.09***	-0.03	1.02**	3.40***	-2.35***	-0.42
	(2.24)	(13.72)	(-1.06)	(0.05)	(0.78)	(0.80)	(4.92)	(-0.07)	(2.16)	(3.48)	(-4.00)	(-1.11)
January	1.59***	0.52*	1.51***	1.96**	2.39***	2.08***	1.84*	1.87***	0.76	7.67***	0.95**	2.28***
	(11.13)	(1.86)	(3.79)	(2.44)	(3.18)	(6.88)	(1.80)	(4.57)	(1.38)	(5.81)	(2.48)	(4.89)
IndCltRank	0.01**	0.02***	0.01	0.02	-0.05*	-0.01	-0.04	0.03	0.01	-0.10**	-0.02**	0.01
	(2.38)	(3.06)	(0.79)	(0.64)	(-1.86)	(-1.15)	(-1.05)	(1.38)	(1.03)	(-2.09)	(-2.38)	(0.33)
R^2	1.51%	9.80%	1.89%	2.53%	5.88%	4.18%	5.74%	2.30%	1.74%	7.85%	2.68%	3.44%
Observations	793,766	153,324	115,951	25,479	29,773	99,263	14,229	47,504	105,264	12,506	133,851	56,622
Cash infusion?		Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	No

Table 6. Cash Infusion, Investor Makeup, and Alternative Explanations

This table reports the results of panel regressions at the monthly individual stock level that test for the cultural New Year effect alone (Panel A) and the cultural New Year effect specifically on stocks with an individual investor clientele (Panel B) for several subsamples. The subsamples are spilt based on each country's employee bonus practices (whether employee bonuses are paid at the cultural year-end), institutional ownership, tax rules, and short selling regulations, and whether a stock belongs to a retail industry. Countries are identified as having above average institutional ownership if the country's average institutional ownership is above the mean institutional ownership of emerging market countries (Faias, Ferreira, Matos, and Santa-Clara 2012). Pakistan and Sri Lanka are omitted in e test based on institutional ownership due to missing data. Stocks are classified as in the Retail industry are comprised of firms in the Consumer Goods and Consumer Services industries. The dependent variable is the monthly individual stock percentage abnormal return. Abnormal returns are calculated using the market model as in Table V. The key independent variables are the cultural New Year month dummy (*CNY*) variable in Panel A and the interactions term between *CNY* and the composite individual investor clientele rank (*IndCltRank*) in Panel B. *CNY* equals one if the majority of the daily trading day window (–4,+4) surrounding the cultural New Year's day falls in that particular month for that country in a given year. *January* is a dummy variable for the month of January. All regressions include the control variables identical to Table IV, year fixed effects, and country effects. The *t*-statistics reported in parentheses are based on standard errors adjusted for clustering at the firm level. The symbol *, **, and *** indicates statistical significance at the 10%, 5%, and 1% level, respectively. The sample period starts between 1991 to 1996, depending on the country, and ends in 2011.

Panel A: Cultural New Year effect in subsamples based on country/firm characteristics

	Employee bonus paid (Cash infusion)?		Identified as above average institutional ownership?		Capital gains tax applied?		Short selling allowed?		Classified as Retail industry?	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
CNY	3.62***	-0.36***	0.17	3.25***	0.45**	3.03***	1.15***	6.01***	2.31***	2.68***
	(37.89)	(-2.84)	(1.04)	(34.01)	(2.57)	(33.27)	(12.73)	(41.92)	(15.27)	(27.20)
January	1.59***	2.98***	2.71***	1.64***	2.46***	1.97***	2.32***	1.38***	2.09***	2.09***
	(15.82)	(19.02)	(12.92)	(17.57)	(11.00)	(21.79)	(22.07)	(10.27)	(13.25)	(20.22)
R^2	1.92%	2.40%	1.20%	2.34%	1.22%	2.34%	1.22%	6.00%	1.71%	1.75%
Observations	635,865	200,690	185,017	623,718	178,626	657,929	604,922	231,633	227,959	577,786

Panel B: Cultural New Year effect through individual investor clientele channel in subsamples based on country/firm characteristics

	Employee bonus paid (Cash infusion)?		Identified as above average institutional ownership?		Capital gains tax applied?		Short selling allowed?		Classified as Retail industry?	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
CNY*IndCltRank	0.15***	-0.06**	-0.05	0.12***	-0.05	0.10***	0.05***	0.13***	0.04	0.09***
	(6.09)	(-2.28)	(-1.64)	(5.37)	(-1.54)	(5.06)	(2.78)	(2.70)	(1.08)	(4.19)
January*IndCltRank	0.03	0.10***	0.12***	0.03	0.09**	0.05***	0.08***	-0.01	0.02	0.07***
	(1.39)	(3.42)	(3.27)	(1.50)	(2.15)	(2.58)	(3.86)	(-0.29)	(0.68)	(3.38)
CNY	0.34*	0.30	0.58*	0.02	0.96***	0.06	0.05	2.85***	0.87***	0.00
	(1.68)	(1.43)	(1.90)	(0.10)	(2.95)	(0.39)	(-0.48)	(6.85)	(3.24)	(0.01)
January	1.40***	2.07**	1.64***	1.44***	1.71***	1.62***	1.46***	2.00***	1.95***	1.40***
	(7.93)	(8.71)	(4.80)	(9.24)	(4.59)	(11.02)	(8.72)	(7.62)	(7.29)	(8.02)
IndCltRank	0.02***	-0.01	0.02**	0.00	0.02**	0.00	0.01***	0.01	0.00	0.02***
	(3.99)	(-1.19)	(2.32)	(0.42)	(2.20)	(0.39)	(2.60)	(0.88)	(-0.45)	(3.03)
R^2	1.59%	2.61%	1.22%	2.04%	1.27%	2.05%	1.22%	5.05%	1.59%	1.53%
Observations	598,173	195,593	182,541	584,490	174,745	619,021	588,228	205,538	217,114	546,845

APPENDIX C

VARIABLE DEFINITIONS FOR "PRE-HOLIDAY MARKET REACTIONS TO CORPORATE ANNOUNCEMENTS"

Abnormal Return (AR): One day abnormal return using the market model. Beta is calculated using a 180 day window that ends 11 trading days before the announcement date. The market is defined as CRSP value-weighted index.

B/M: The book-to-market ratio calculated as in Fama and French (1992). Market value is measured as of December of year $t - 2$ if the announcement date falls before the June end of year t and as of December of year $t - 1$ if the date falls after the June end of year t. Book value is as of the fiscal year $t - 2$ if the announcement date falls before the June end of year t and as of fiscal year $t - 1$ if the date falls after the June end of year t. Thus, from June of year t through June of year $t + 1$, the book/market ratio remains unchanged.

CashOnly: A dummy variable which equals one if the acquisition deal's method of payment offered is cash only.

CAR(0,1): Cumulative two-day abnormal return for day 0 and 1 relative to the imputed announcement day (day 0). Abnormal return is calculated using the market model. Beta is calculated using a 180 day window that ends 11 trading days before the imputed announcement date. The market is defined as CRSP value-weighted index.

Fall: A dummy variable which equals one if the imputed announcement date occurs between the autumnal equinox and the winter solstice (Kamstra, Kramer, and Levi 2003).

Friday: A dummy variable which equals one if the imputed announcement date is on a Friday.

Ivol: The standard deviation of the residuals of the previous month's daily returns regressed on the Fama-French three factors.

Instithold: The number of shares held by institutions (Thomson Reuters 13F) divided by the number of shares outstanding (CRSP) for the prior quarter.

January: A dummy variable which equals one if the imputed announcement date falls in January.

MarketCap: The market capitalization at the end of the previous month, expressed in millions of dollars.

Momentum: The cumulated monthly stock return from month $t - 12$ to $t - 2$.

Monday: A dummy variable which equals one if the imputed announcement date is on a Monday.

NumAnalysts: The number of analysts' estimates as reported in I/B/E/S.

Preholiday: A dummy variable which equals one if the imputed announcement date occurs within two trading days of a holiday or on the holiday itself if the market is open that day. The holidays examined in this study are New Year's Day, Valentine's Day, Presidents' Day, St. Patrick's Day, Easter, Mother's Day, Memorial Day, Father's Day, the Fourth of July, Labor Day, Halloween, Thanksgiving, and Christmas.

Public: A dummy variable which equals one if the target of the acquisition is a public firm as recorded in SDC.

Reversal: The stock return of the prior month.

Sentiment: Baker and Wurgler's (2007) monthly investor sentiment measure measured at the beginning of each month, which is orthogonalized to macro-economic variables.

SIR: The short interest ratio, calculated as the total number of shares shorted divided by the number of shares outstanding, both measured in the prior month.

Surprise: Each quarter, earnings surprises are ranked from lowest to highest and assigned into a decile, called Surprise. Earnings surprises are calculated as actual EPS minus median analyst forecast EPS, all scaled by stock price. EPS is earnings per share as reported by I/B/E/S and median analyst forecast EPS is the median of the most recent forecasts from individual analysts using the I/B/E/S detail tape. Stock price is the closing price two weeks prior to the announcement date.

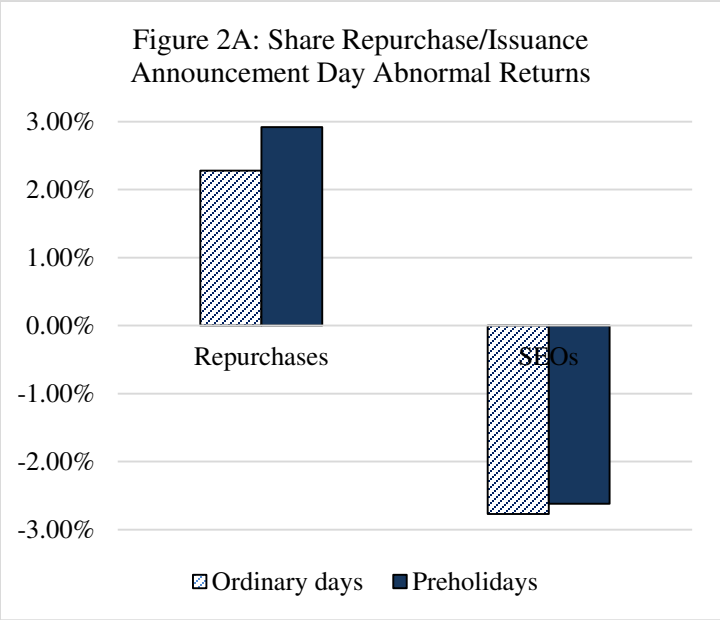
Turnover: The trading volume of the prior month divided by shares outstanding at the end of the prior month.

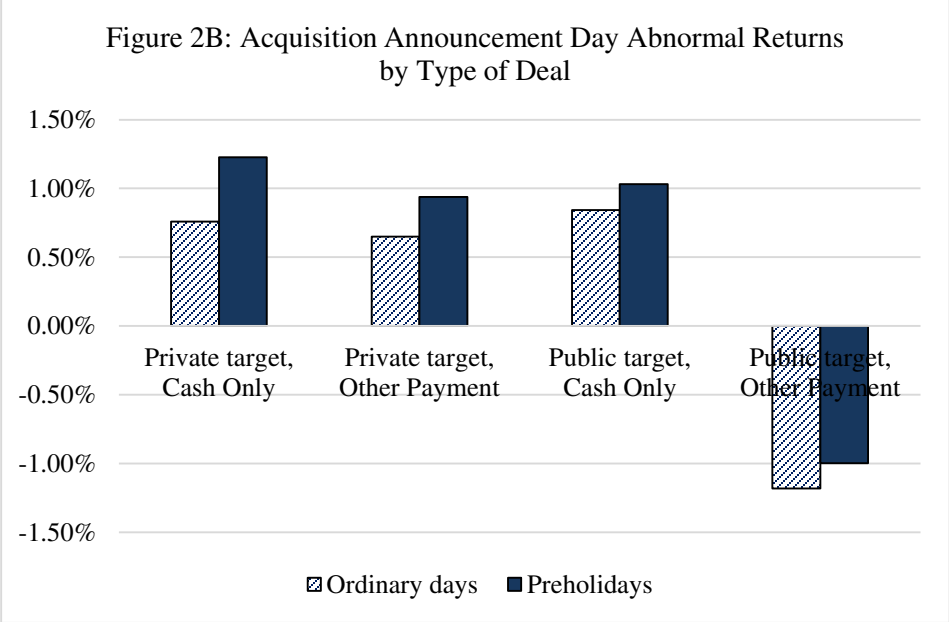
Up: A dummy variable which equals one if the value-weighted CRSP index earns a positive return on the imputed announcement day (Gulen and Hwang 2012).

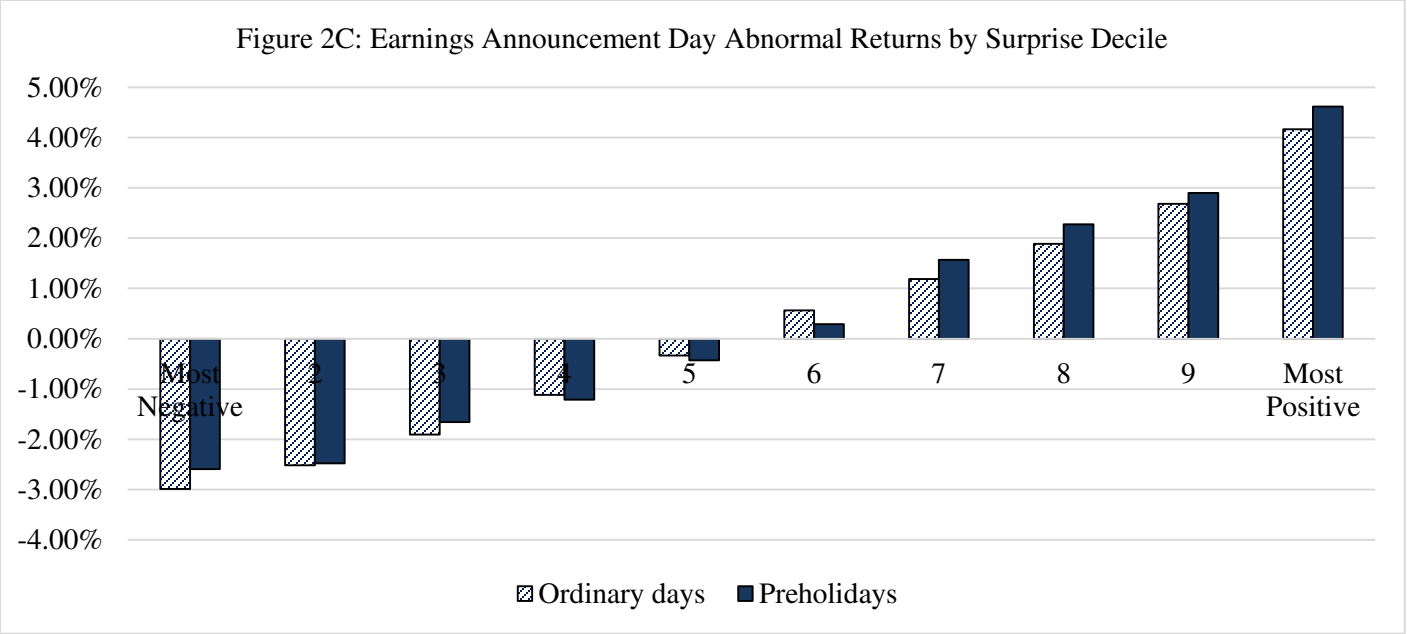
APPENDIX D

FIGURES AND TABLES FOR "PRE-HOLIDAY MARKET REACTIONS TO CORPORATE ANNOUNCEMENTS"

Figure 2: Announcement Day Abnormal Returns







This figure shows mean announcement day abnormal returns (*AR*) for *Ordinary days* vs. *Preholidays*. An observation is classified as "*Preholiday*" if the imputed firm announcement date is within two trading days prior to a holiday and includes the holiday itself if the market is open that day. An observation is classified as "*Ordinary day*" if the imputed firm announcement date does not fall within two trading days prior to a holiday. *AR* is the one day abnormal return using the market model on the imputed announcement date. Figure 2A depicts the mean ARs for repurchases and SEOs. Figure 2B displays abnormal returns from the acquirer's perspective and are grouped by the type of deal (public, private, cash only, other payment). In Figure 2C, earnings announcements are grouped by deciles of earnings surprises. Earnings surprise is calculated as actual EPS minus median analyst forecast EPS scaled by stock price. Earnings announcements are ranked into deciles by the earnings surprise each quarter each year. The *Surprise* decile 1 contains the most negative earnings surprises *Surprise* decile 10 contains the most positive earnings surprises. Data are from January 1984 to December 2012.

Figure 3: Average Values of Gallup Daily U.S. Mood Index by Holiday

Panel A: *Happy, Worry, Happy – Worry*

Panel B: *Abnormal Happy, Abnormal Worry, Abnormal (Happy – Worry)*

Figure 3A: Happy on Preholiday Trading Days Relative to Ordinary Trading Days

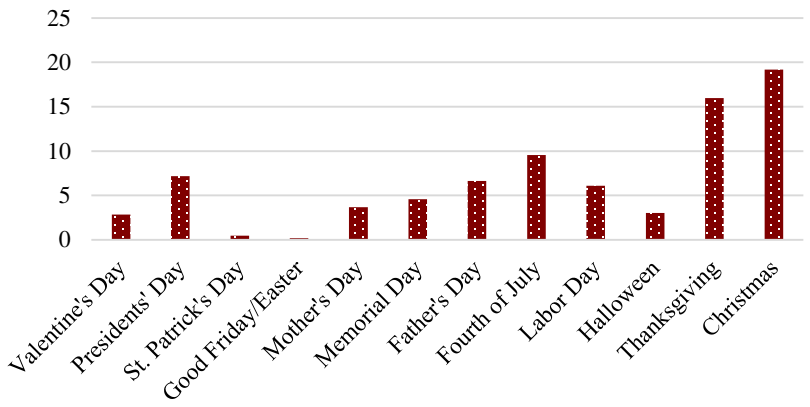


Figure 3D: Abnormal Happy on Ordinary Trading Days vs. Preholiday Trading Days

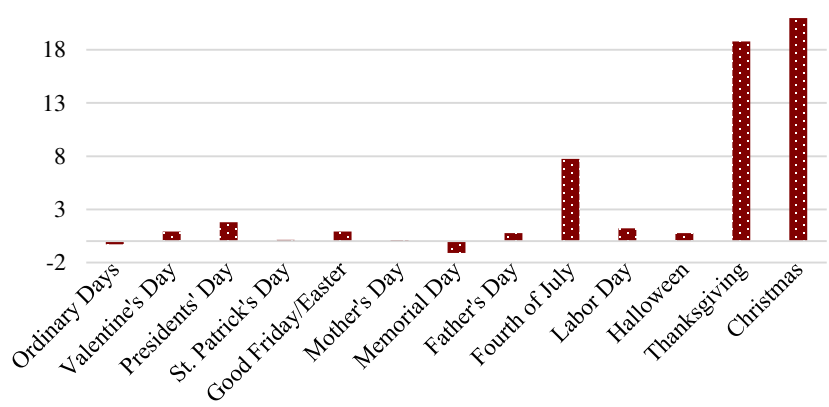


Figure 3B: Worry on Preholiday Trading Days Relative to Ordinary Trading Days

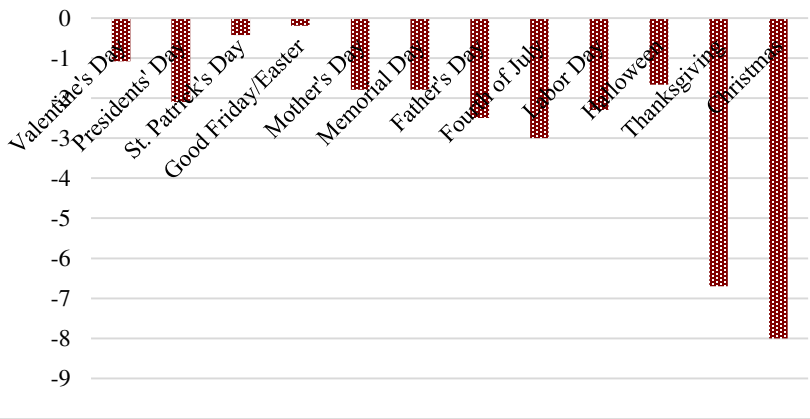
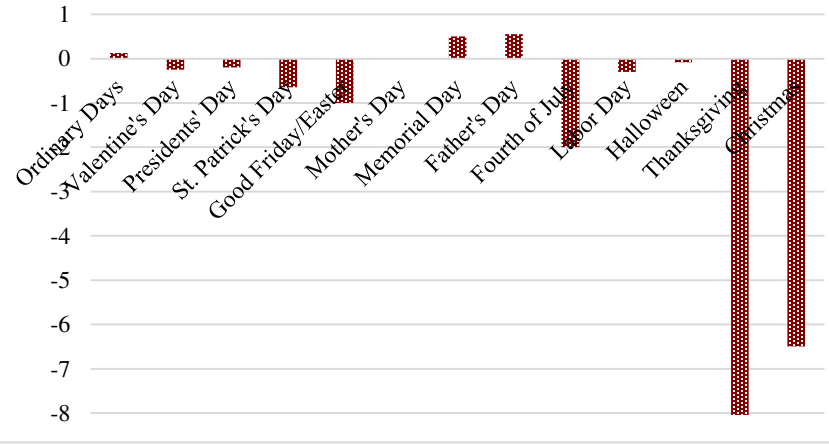
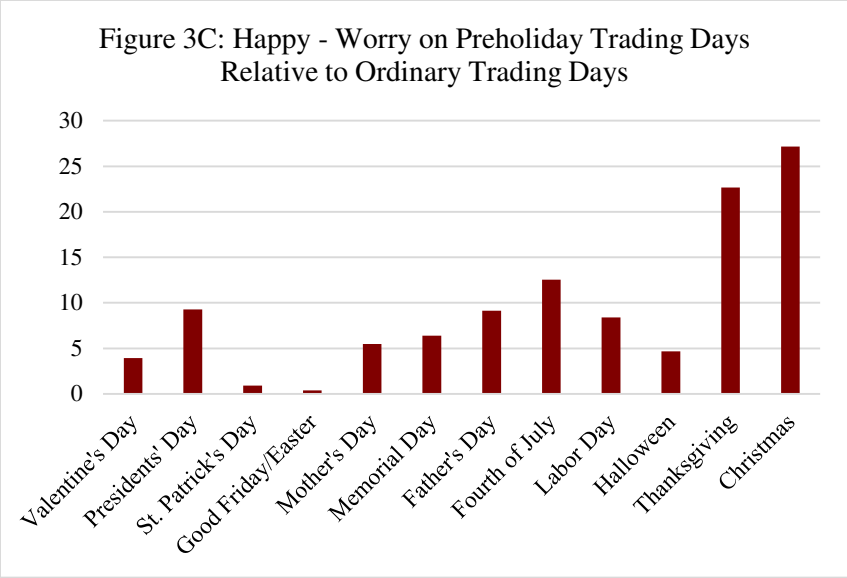
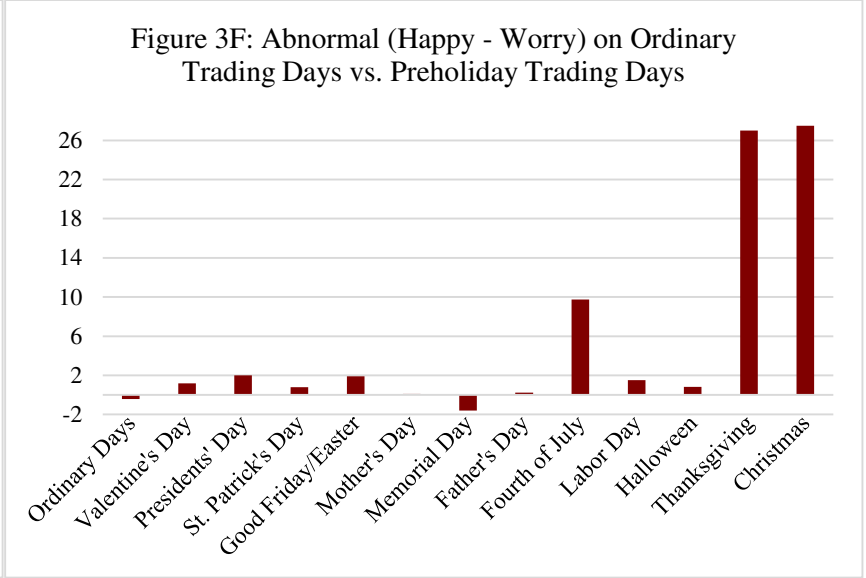


Figure 3E: Abnormal Worry on Ordinary Trading Days vs. Preholiday Trading Days

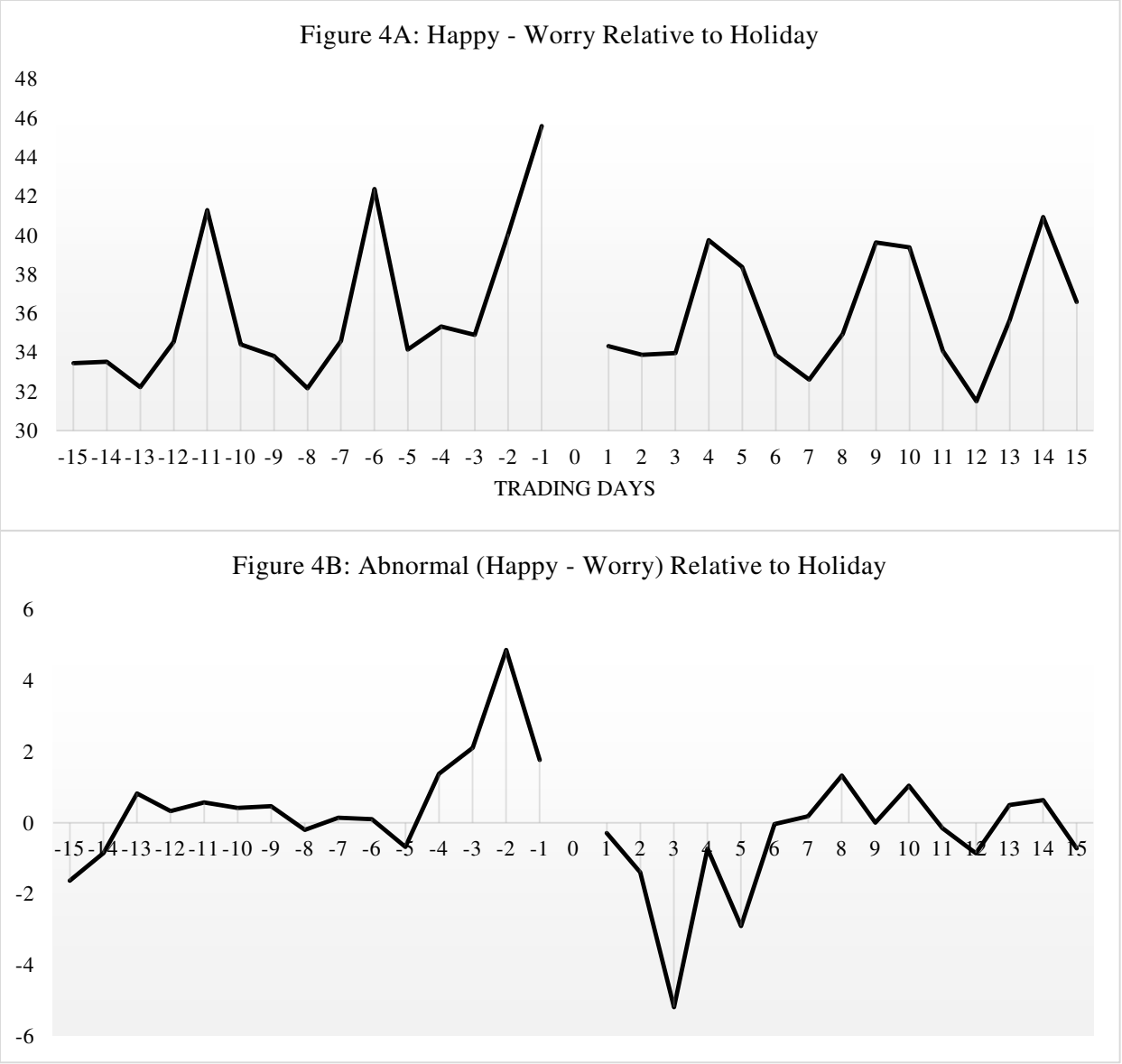






This figure depicts the average reported levels and abnormal values of *Happy*, *Worry*, and *Happy – Worry* for *Ordinary days* and for *Preholidays* prior to each holiday. An observation is classified as "*Ordinary day*" if the imputed firm announcement date does not fall within two trading days prior to a holiday. An observation is classified as "*Preholiday*" if the imputed firm announcement date is within two trading days prior to a holiday and includes the holiday itself if the market is open that day. Since the *Preholidays* are separated by holiday, for instance, the *Preholidays* associated with Christmas would be those announcement days within two trading days prior to Christmas. *Happy* refers to the daily percentage of Americans who, reflecting on the day before they were surveyed, report that they experienced a lot of happiness and enjoyment without a lot of stress and worry. *Worry* refers to the daily percentage of Americans who, reflecting on the day before they were surveyed, report that they experienced worry and stress without a lot of happiness and enjoyment. In Panel B, *Abnormal Happy*, *Abnormal Worry*, and *Abnormal (Happy – Worry)* are calculated as the Gallup value minus the value on the same day of the prior week in order to control for predictable day of the week effects. *Happy* and *Worry* are from the Gallup Daily U.S. Mood data based on the Gallup-Healthways Well-Being Index. Daily Gallup data are based on telephone interviews with approximately 500 adults. Data are from January 2008 to November 2012.

Figure 4: Daily Happy – Worry Relative to the Holiday



This figures depicts the mean daily *Happy – Worry* and *Abnormal (Happy – Worry)* from trading days fifteen days prior to until fifteen days after a holiday. *Happy – Worry* is *Happy* minus *Worry* as reported in the Gallup Daily U.S. Mood data based on the Gallup-Healthways Well-Being Index. *Happy* refers to the daily percentage of Americans who, reflecting on the day before they were surveyed, reported that they experienced a lot of happiness and enjoyment without a lot of stress and worry. *Worry* refers to the daily percentage of Americans who, reflecting on the day before they were surveyed, say that they experienced worry and stress without a lot of happiness and enjoyment. *Abnormal (Happy – Worry)* is calculated as *Happy – Worry* minus the value on the same day of the prior week, in order to control for the predictable day of the week effect. Daily Gallup data are based on telephone interviews with approximately 500 adults. Data are from January 2008 to November 2012.

Table 7: Summary Statistics

This table reports the means and standard deviations of the continuous variables for all corporate announcements, all favorable announcements, share repurchase announcements, favorable acquisitions announcements, positive earnings surprises, all unfavorable announcements, seasoned equity offering announcements, unfavorable acquisitions announcements, negative earnings surprises, all acquisitions announcements, and all quarterly earnings announcements. Standard deviations are reported in brackets. Acquisition announcements are from the perspective of the acquirer. Favorable acquisitions include all announcements of private target acquisitions and cash acquisitions of public targets, whereas unfavorable acquisitions are comprised of announcements of acquisitions of public targets where the method of payment is not cash only. Positive earnings surprises are earnings announcements where the actual earnings met or exceeded the median analysts' forecast, while negative earnings surprises are earnings announcements where actual earnings did not meet the median analysts' forecast. All Favorable consist of announcements of repurchases, favorable acquisitions, and positive earnings surprises, whereas All Unfavorable consist of announcements of SEOs, unfavorable acquisitions, and negative earnings surprises. Variables include the firm's market capitalization in millions *(MktCap),* book/market ratio (*B/M*), one month reversal (*Reversal*), momentum ($t-12$ to $t-2$), institutional holdings (*Institthold*) of the prior quarter, turnover of the prior month (*Turnover*), and idiosyncratic volatility *Ivol* of the prior month. *MktCap* is reported in millions of dollars. Panel A contains the summary statistics for all firms. Panel B contains firms that made corporate announcements on *Ordinary days*. Panel B contains summary statistics for firms that made corporate announcements on pre-holidays. An observation is classified as "Ordinary day" if the imputed firm announcement date does not fall within two trading days prior to a holiday. An observation is classified as "Preholiday" if the imputed firm announcement date is within two trading days prior to holidays and includes the holiday itself if the market is open that day. All variable definitions are in the Appendix. The sample period is from January 1984 to December 2012.

Panel A: Means and Standard Deviations for All Firms

	N	AR	MktCap	B/M	Reversal	Momentum	Institthold	Turnover	Ivol
All	191,629	0.43%	4.45	0.51	1.24%	23.30%	58.67%	0.16%	2.20%
		[7.43%]	[20.04]	[0.55]	[14.06%]	[77.47%]	[26.88%]	[0.19%]	[1.48%]
All Favorable	135,804	1.42%	5.03	0.50	1.55%	25.60%	60.80%	0.16%	2.19%
		[7.32%]	[21.35]	[0.56]	[14.03%]	[81.73%]	[26.81%]	[0.19%]	[1.46%]
Repurchases	9,522	2.34%	5.32	0.51	-3.68%	10.28%	59.11%	0.16%	2.42%
		[7.42%]	[21.33]	[0.63]	[14.18%]	[49.61%]	[27.54%]	[0.19%]	[1.73%]
Favorable acquisitions	14,689	0.71%	9.67	0.46	2.04%	29.50%	58.15%	0.17%	2.42%
		[5.95%]	[36.31]	[0.66]	[17.38%]	[92.38%]	[28.40%]	[0.21%]	[1.77%]
Positive earnings surprises	111,593	1.43%	4.40	0.51	1.93%	26.41%	61.25%	0.16%	2.13%
		[7.46%]	[18.42]	[0.53]	[13.41%]	[82.32%]	[26.52%]	[0.19%]	[1.38%]
All Unfavorable	55,825	-1.97%	3.04	0.53	0.49%	17.73%	53.49%	0.14%	2.23%
		[7.14%]	[16.33]	[0.52]	[14.13%]	[65.67%]	[26.35%]	[0.18%]	[1.52%]
SEOS	5,054	-2.76%	1.64	0.47	9.50%	71.30%	49.53%	0.22%	2.84%
		[6.09%]	[8.68]	[0.80]	[22.55%]	[132.73%]	[27.68%]	[0.30%]	[1.89%]
Unfavorable acquisitions	1,860	-1.16%	14.99	0.42	3.68%	31.13%	59.90%	0.17%	2.39%
		[7.17%]	[45.63]	[0.78]	[17.05%]	[81.46%]	[26.17%]	[0.20%]	[1.83%]
Negative earnings surprises	48,911	-1.91%	2.73	0.54	-0.56%	11.80%	53.61%	0.13%	2.17%
		[7.23%]	[14.55]	[0.47]	[12.43%]	[50.48%]	[26.18%]	[0.16%]	[1.45%]
All Acquisitions	16,549	0.50%	10.27	0.46	2.23%	29.69%	58.35%	0.17%	2.42%
		[6.13%]	[37.51]	[0.68]	[17.35%]	[91.20%]	[28.16%]	[0.21%]	[1.77%]
All Earnings	160,504	0.41%	3.89	0.52	1.17%	21.94%	58.92%	0.15%	2.14%
		[7.55%]	[17.35]	[0.51]	[13.17%]	[74.36%]	[26.65%]	[0.18%]	[1.40%]

Panel B: Means and Standard Deviations for Firms Announcing on Ordinary Days

	N	AR	MktCap	B/M	Reversal	Momentum	Institthold	Turnover	Ivol
All	173,144	0.42%	4.52	0.51	1.24%	23.30%	58.52%	0.15%	2.20%
		[7.37%]	[20.12]	[0.53]	[14.03%]	[76.94%]	[26.78%]	[0.19%]	[1.48%]
All Favorable	122,803	1.40%	5.10	0.50	1.56%	25.57%	60.64%	0.16%	2.18%
		[7.27%]	[21.50]	[0.53]	[13.98%]	[81.11%]	[26.72%]	[0.19%]	[1.46%]
Repurchases	8,584	2.28%	5.33	0.50	-3.73%	10.15%	59.02%	0.16%	2.43%
		[7.38%]	[21.65]	[0.50]	[14.23%]	[50.02%]	[27.50%]	[0.20%]	[1.74%]
Favorable acquisitions	13,180	0.68%	9.65	0.46	2.16%	29.61%	58.12%	0.17%	2.42%
		[6.01%]	[36.25]	[0.59]	[17.48%]	[93.47%]	[28.36%]	[0.21%]	[1.75%]
Positive earnings surprises	101,039	1.42%	4.49	0.51	1.93%	26.36%	61.07%	0.16%	2.13%
		[7.40%]	[18.64]	[0.53]	[13.34%]	[81.40%]	[26.44%]	[0.19%]	[1.38%]
All Unfavorable	50,341	-1.97%	3.09	0.53	0.46%	17.79%	53.36%	0.14%	2.23%
		[7.07%]	[16.18]	[0.51]	[14.14%]	[65.36%]	[26.22%]	[0.18%]	[1.52%]
SEOS	4,522	-2.77%	1.61	0.47	9.70%	71.34%	49.79%	0.22%	2.82%
		[6.04%]	[7.41]	[0.82]	[22.87%]	[133.47%]	[27.65%]	[0.29%]	[1.86%]
Unfavorable acquisitions	1,675	-1.18%	15.30	0.43	3.70%	31.92%	59.89%	0.17%	2.39%
		[7.07%]	[46.43]	[0.44]	[17.01%]	[82.98%]	[26.24%]	[0.20%]	[1.85%]
Negative earnings surprises	44,144	-1.92%	2.77	0.54	-0.61%	11.89%	53.44%	0.13%	2.16%
		[7.17%]	[14.33]	[0.47]	[12.38%]	[49.88%]	[26.04%]	[0.16%]	[1.45%]
All Acquisitions	14,855	0.47%	10.29	0.45	2.34%	29.87%	58.32%	0.17%	2.41%
		[6.17%]	[37.57]	[0.57]	[17.43%]	[92.32%]	[28.14%]	[0.21%]	[1.76%]
All Earnings	145,183	0.40%	3.97	0.52	1.16%	21.95%	58.75%	0.15%	2.14%
		[7.49%]	[17.46]	[0.51]	[13.10%]	[73.54%]	[26.55%]	[0.18%]	[1.40%]

Panel C: Means and Standard Deviations for Firms Announcing on Preholidays

	N	AR	MktCap	B/M	Reversal	Momentum	Institthold	Turnover	Ivol
All	18,485	0.58%	3.86	0.53	1.24%	23.34%	60.07%	0.16%	2.22%
		[7.92%]	[19.25]	[0.71]	[14.34%]	[82.26%]	[27.74%]	[0.19%]	[1.50%]
All Favorable	13,001	1.63%	4.37	0.53	1.45%	25.96%	62.34%	0.17%	2.20%
		[7.79%]	[19.88]	[0.75]	[14.47%]	[87.32%]	[27.54%]	[0.18%]	[1.48%]
Repurchases	938	2.92%	5.25	0.56	-3.25%	11.45%	59.88%	0.14%	2.34%
		[7.84%]	[18.09]	[1.36]	[13.72%]	[45.76%]	[27.85%]	[0.15%]	[1.57%]
Favorable acquisitions	1,509	1.00%	9.81	0.49	0.99%	28.56%	58.43%	0.16%	2.45%
		[5.42%]	[36.87]	[1.13]	[16.48%]	[82.40%]	[28.70%]	[0.17%]	[1.91%]
Positive earnings surprises	10,554	1.61%	3.52	0.53	1.93%	26.89%	63.07%	0.17%	2.15%
		[8.05%]	[16.08]	[0.59]	[14.15%]	[90.64%]	[27.30%]	[0.19%]	[1.40%]
All Unfavorable	5,484	-1.92%	2.65	0.53	0.74%	17.16%	54.68%	0.14%	2.28%
		[7.68%]	[17.61]	[0.62]	[14.02%]	[68.45%]	[27.47%]	[0.20%]	[1.55%]
SEOS	532	-2.62%	1.90	0.51	7.74%	70.93%	47.33%	0.22%	2.95%
		[6.48%]	[15.78]	[0.65]	[19.49%]	[126.44%]	[27.84%]	[0.41%]	[2.16%]
Unfavorable acquisitions	185	-1.00%	12.11	0.32	3.49%	24.04%	59.93%	0.16%	2.38%
		[8.10%]	[37.69]	[2.10]	[17.50%]	[66.01%]	[25.62%]	[0.15%]	[1.72%]
Negative earnings surprises	4,767	-1.87%	2.36	0.54	-0.15%	10.96%	55.18%	0.13%	2.20%
		[7.79%]	[16.45]	[0.47]	[12.87%]	[55.66%]	[27.39%]	[0.16%]	[1.44%]
All Acquisitions	1,694	0.78%	10.06	0.47	1.26%	28.05%	58.59%	0.16%	2.44%
		[5.80%]	[36.96]	[1.28]	[16.61%]	[80.74%]	[28.39%]	[0.17%]	[1.89%]
All Earnings	15,321	0.53%	3.16	0.53	1.28%	21.93%	60.61%	0.16%	2.17%
		[8.13%]	[16.21]	[0.56]	[13.80%]	[81.71%]	[27.57%]	[0.18%]	[1.41%]

Table 8: Logistic Model to Predict the Probability of a Pre-holiday Announcement

This table reports the results of a logistic model which predicts the probability of a firm making a preholiday corporate announcement. Variables include the firm's natural logarithm of market capitalization *Log(MktCap),* book/market ratio (*B/M*), one month reversal (*Reversal*), momentum (*t* - 12 to *t* - 2), institutional holdings (*Institthold*) of the prior quarter, turnover of the prior month (*Turnover*), and the natural logarithm of idiosyncratic volatility *Log(Ivol)* of the prior month. Industry fixed effects using the Fama-French 30 industry classifications are also included. *, **, and *** indicates 10%, 5%, and 1% level of significance respectively. Wald Chi-Square statistics are reported in parentheses. The R^2 is the maximum rescaled R^2 (Nagelkerke 1991). The sample period is from January 1984 to December 2012.

	All	All Favorable	Repurchases	Favorable Acquisitions	Positive Earnings Surprises	All Unfavorable	SEOs	Unfavorable Acquisitions	Negative Earnings Surprises	All Acquisitions	All Earnings
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Log(MktCap)	-0.07***	-0.06***	0.01	0.01	-0.09***	-0.10***	-0.07	-0.01	-0.11***	0.01	-0.09***
	(137.80)	(78.73)	(0.08)	(0.55)	(112.17)	(64.26)	(2.30)	(0.01)	(68.44)	(0.30)	(182.39)
B/M	0.02	0.04**	0.08*	0.05*	0.02	-0.06**	0.01	0.21	-0.10***	0.05*	-0.01
	(1.22)	(6.60)	(3.03)	(2.79)	(1.61)	(4.38)	(0.02)	(1.18)	(7.48)	(2.94)	(0.12)
Reversal	0.04	-0.02	0.05	-0.60***	0.07	0.20*	-0.65**	0.43	0.37***	-0.49**	0.14**
	(0.53)	(0.05)	(0.03)	(8.23)	(0.82)	(3.73)	(5.26)	(0.55)	(8.55)	(6.17)	(4.27)
Momentum	0.00	0.01	0.06	-0.01	0.01	-0.01	-0.04	-0.08	-0.01	-0.01	0.00
	(0.11)	(0.54)	(0.63)	(0.03)	(0.45)	(0.25)	(0.79)	(0.38)	(0.12)	(0.12)	(0.12)
Institthold	0.40***	0.40***	0.16	0.14	0.47***	0.42***	-0.19	0.18	0.51***	0.14	0.48***
	(113.99)	(81.97)	(0.71)	(1.14)	(95.88)	(36.98)	(0.61)	(0.20)	(45.95)	(1.29)	(137.85)
Turnover	14.98***	13.05**	-35.14	-31.66	21.23***	19.12**	27.29	8.57	20.25*	-26.86*	20.74***
	(10.17)	(5.57)	(1.57)	(2.60)	(13.11)	(4.58)	(2.59)	(0.02)	(3.33)	(2.13)	(16.01)
Log(Ivol)	-0.02	-0.02	-0.02	0.10	-0.04*	-0.02	0.13	-0.06	-0.03	0.08	-0.04*
	(1.57)	(1.15)	(0.06)	(2.52)	(2.87)	(0.50)	(1.13)	(0.09)	(0.73)	(1.91)	(3.67)
N	180,047	127,523	8,009	13,163	106,351	52,524	4,021	1,675	46,828	14,838	153,179
R^2	0.48%	0.46%	0.85%	0.81%	0.68%	0.77%	2.58%	3.87%	0.94%	0.71%	0.68%

Table 9: Pre-holiday Firm Announcement Effect Multivariate Regressions

This table tests for the pre-holiday firm announcement effect using multivariate regressions for all corporate announcements, all favorable announcements, share repurchase announcements, favorable acquisitions announcements, positive earnings surprises, all unfavorable announcements, seasoned equity offering announcements, unfavorable acquisitions announcements, negative earnings surprises, all acquisitions announcements, and all quarterly earnings announcements. Acquisition announcements are from the perspective of the acquirer. Favorable acquisitions include all announcements of private target acquisitions and cash acquisitions of public targets, whereas unfavorable acquisitions are comprised of announcements of acquisitions of public targets where the method of payment is not cash only. Positive earnings surprises are earnings announcements where the actual earnings met or exceeded the median analysts' forecast, while negative earnings surprises are earnings announcements where actual earnings did not meet the median analysts' forecast. All Favorable consist of announcements of repurchases, favorable acquisitions, and positive earnings surprises, whereas All Unfavorable consist of announcements of SEOs, unfavorable acquisitions, and negative earnings surprises. *Preholiday* is a dummy variable that equals one if the imputed firm announcement date is within two trading days of a holiday and includes the holiday itself if the market is open that day. Control variables include the firm's natural logarithm of market capitalization *Log(MktCap),* book-to-market ratio (*B/M*), one month reversal (*Reversal*), momentum (*t* - 12 to *t* - 2), institutional holdings (*Instithold*) of the prior quarter, turnover of the prior month (*Turnover*), and natural logarithm of idiosyncratic volatility *Log(Ivol)* of the prior month. We also control for the day of the week using *Monday* and *Friday* dummy variables and for January and Fall seasonality using *January* and *Fall* dummy variables. For all acquisition announcements, we control for whether the target is publicly traded using a *Public* dummy variable and for whether the deal was cash only using a *CashOnly* dummy variable. For all earnings announcements, we control for the number of analysts and the amount of the earnings surprise. We calculate earnings surprises as actual EPS minus median analyst forecast EPS scaled by stock price. Earnings announcements are ranked into deciles by the magnitude of the earnings surprise each quarter each year (*Surprise*). *NumAnalysts* is the number of analysts' estimates. In Panel A, the dependent variable is the one day abnormal return (*AR*) using the market model of the imputed announcement date. In Panel B, the dependent variable is the two day cumulative abnormal return *(CAR(0,1))*. In Panel C, the dependent variable is the one day abnormal return (*AR*) using the Fama-French Four Factor model of the imputed announcement date. Panel D tests for the pre-holiday firm announcement effect by matching firms with their respective Fama-French 25 size-B/M portfolios. The dependent variable is the one day raw return minus the portfolio return of the firm's corresponding size-B/M portfolio. In all panels, industry fixed effects using the Fama-French 30 industry classifications are included in all regressions. Standard errors are adjusted for clustering at the firm level for all corporate announcements and earnings announcements, and at the industry level for share repurchase announcements, seasoned equity offering announcements, and acquisition announcements. All continuous independent variables are standardized to have zero mean and unit variance for ease of interpretation. *, **, and *** indicates 10%, 5%, and 1% level of significance respectively using a two-tailed test. Reported in parentheses are the *t*-statistics. The sample period is from January 1984 to December 2012.

Panel A: Abnormal Return based on Market Model

	All (1)	All Favorable (2)	Repurchases (3)	Favorable Acquisitions (4)	Positive Earnings Surprises (5)	All Unfavorable (6)	SEOs (7)	Unfavorable Acquisitions (8)	Negative Earnings Surprises (9)	All Acquisitions (10)	All Earnings (11)
Preholiday	0.16%**	0.18%**	0.78%**	0.32%*	0.14%*	0.23%**	0.40%**	0.49%	0.22%*	0.34%**	0.16%**
	(2.55)	(2.41)	(2.36)	(1.93)	(1.72)	(2.01)	(2.24)	(1.32)	(1.79)	(2.41)	(2.40)
Common Controls:											
Log(MktCap)	-0.19%***	-0.54%***	-0.66%***	-0.43%***	-0.50%***	0.26%***	0.26%**	-0.37%**	0.27%***	-0.40%***	-0.22%***
	(-7.96)	(-17.64)	(-7.43)	(-4.77)	(-15.30)	(5.75)	(2.15)	(-2.05)	(5.39)	(-4.85)	(-5.93)
B/M	0.18%***	0.16%***	0.25%	0.11%***	0.16%***	0.16%***	-0.18%	-0.71%	0.24%***	0.08%*	0.08%***
	(6.00)	(4.37)	(1.57)	(2.61)	(3.80)	(3.80)	(-1.09)	(-1.26)	(5.45)	(1.77)	(2.74)
Reversal	-0.15%***	0.21%***	-0.48%***	-0.21%*	0.30%***	-0.52%***	-0.04%	-0.43%	-0.56%***	-0.28%**	-0.26%***
	(-3.37)	(6.98)	(-4.99)	(-1.95)	(9.18)	(-11.16)	(-0.20)	(-1.58)	(-11.06)	(-2.37)	(-9.46)
Momentum	-0.32%***	-0.13%***	-0.37%***	0.06%	-0.17%***	-0.43%***	-0.02%	0.07%	-0.46%***	0.06%	-0.39%***
	(-7.99)	(-2.95)	(-3.40)	(0.43)	(-4.05)	(-7.40)	(-0.11)	(0.42)	(-7.62)	(0.47)	(-6.79)
Instithold	0.16%***	0.27%***	-0.32%**	0.25%***	0.24%***	0.03%	0.03%	-0.89%***	0.05%	0.12%	0.15%***
	(6.46)	(8.68)	(-2.46)	(2.95)	(7.20)	(0.57)	(0.25)	(-3.79)	(1.02)	(1.38)	(5.63)
Turnover	-0.21%***	-0.22%***	-0.21%	0.18%	-0.23%***	-0.22%***	-0.34%*	0.22%	-0.28%***	0.18%	-0.27%***
	(-6.36)	(-3.69)	(-1.48)	(0.59)	(-6.88)	(-4.77)	(-1.67)	(1.39)	(-6.25)	(0.64)	(-6.91)
Log(Ivol)	0.23%***	-0.42%***	0.77%***	-0.26%***	-0.43%***	-0.39%***	-0.37%**	-0.37%**	-0.47%***	-0.27%***	0.17%***
	(8.90)	(-7.23)	(6.61)	(-3.15)	(-6.31)	(-8.20)	(-2.35)	(-2.25)	(-8.88)	(-3.70)	(6.17)
Monday	-0.29%***	-0.37%***	-0.31%*	-0.15%*	-0.35%***	0.25%***	0.52%**	-1.51%***	0.26%***	-0.34%***	-0.19%***
	(-5.66)	(-6.15)	(-1.72)	(-1.74)	(-4.81)	(2.71)	(2.26)	(-3.57)	(2.62)	(-3.34)	(-3.38)
Friday	-0.13%***	-0.08%	0.08%	0.04%	-0.12%*	-0.04%	0.22%	-0.99%**	-0.02%	-0.06%	-0.09%*
	(-2.56)	(-1.36)	(0.42)	(0.37)	(-1.80)	(-0.44)	(0.68)	(-2.35)	(-0.21)	(-0.53)	(-1.77)
January	0.16%**	0.06%	0.76%**	-0.02%	0.04%	0.31%***	0.16%	-0.34%	0.36%***	-0.06%	0.04%
	(2.46)	(0.82)	(2.50)	(-0.15)	(0.46)	(2.76)	(0.40)	(-0.54)	(2.98)	(-0.39)	(0.65)
Fall	-0.12%***	-0.08%	0.13%	0.11%	-0.14%**	-0.12%	-0.38%*	0.10%	-0.11%	0.10%	-0.17%***
	(-2.84)	(-1.60)	(0.58)	(1.41)	(-2.43)	(-1.61)	(-1.87)	(0.33)	(-1.49)	(1.28)	(-3.83)

Continued on next page

Panel A - Continued

	All (1)	All Favorable (2)	Repurchases (3)	Favorable Acquisitions (4)	Positive Earnings Surprises (5)	All Unfavorable (6)	SEOs (7)	Unfavorable Acquisitions (8)	Negative Earnings Surprises (9)	All Acquisitions (10)	All Earnings (11)
Public										-1.10%***	
										(-4.51)	
CashOnly										0.49%***	
										(4.56)	
Surprise											0.81%***
											(71.18)
NumAnalysts											0.03%***
											(5.04)
Industry FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	180,047	127,523	8,009	13,163	106,351	52,524	4,021	1,675	46,828	14,838	153,179
R^2	0.65%	1.48%	6.54%	2.41%	1.32%	1.93%	2.81%	4.83%	2.34%	2.75%	8.06%

Panel B: Cumulative Abnormal Return (0,1) Using Market Model

	All (1)	All Favorable (2)	Repurchases (3)	Favorable Acquisitions (4)	Positive Earnings Surprises (5)	All Unfavorable (6)	SEOs (7)	Unfavorable Acquisitions (8)	Negative Earnings Surprises (9)	All Acquisitions (10)	All Earnings (11)
Preholiday	0.24%***	0.26%***	1.00%***	0.29%	0.23%**	0.33%**	0.55%**	0.69%	0.28%**	0.34%**	0.24%***
	(3.30)	(3.23)	(2.58)	(1.73)	(2.49)	(2.61)	(2.64)	(1.04)	(2.05)	(2.05)	(3.18)
	Control variables, industry fixed effects, and clustering as in Panel A										
N	180,454	126,440	8,009	13,173	105,258	54,014	4,021	1,675	48,318	14,848	151,648
R^2	0.70%	1.59%	6.92%	2.32%	1.41%	1.57%	3.03%	4.50%	1.98%	2.74%	8.47%

Panel C: Abnormal Return Using Fama-French Four Factor Model

	All	All Favorable	Repurchases	Favorable Acquisitions	Positive Earnings Surprises	All Unfavorable	SEOs	Unfavorable Acquisitions	Negative Earnings Surprises	All Acquisitions	All Earnings
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Preholiday	0.15%**	0.18%**	0.82%**	0.50%***	0.12%	0.20%	0.40%*	0.59%	0.18%	0.49%***	0.14%*
	(1.96)	(2.10)	(2.01)	(2.92)	(1.30)	(1.53)	(1.91)	(1.28)	(1.32)	(3.25)	(1.79)
	Control variables, industry fixed effects, and clustering as in Panel A										
N	152,308	107,492	6,631	10,286	90,575	44,816	3,462	1,386	39,968	11,672	130,543
R^2	0.59%	1.43%	7.00%	3.36%	1.28%	2.03%	2.85%	5.08%	2.61%	2.98%	9.13%

Panel D: Returns Matched with Size-B/M Portfolios

	All	All Favorable	Repurchases	Favorable Acquisitions	Positive Earnings Surprises	All Unfavorable	SEOs	Unfavorable Acquisitions	Negative Earnings Surprises	All Acquisitions	All Earnings
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Preholiday	0.16%**	0.20%**	0.63%*	0.85%**	0.11%	0.20%*	0.34%*	1.59%*	0.16%	0.94%***	0.12%*
	(2.55)	(2.30)	(1.94)	(2.13)	(1.35)	(1.70)	(1.92)	(1.80)	(1.37)	(2.68)	(1.84)
	Control variables, industry fixed effects, and clustering as in Panel A										
N	180,047	127,519	8,009	13,159	106,351	52,523	4,021	1,675	46,827	14,834	153,178
R^2	0.65%	1.16%	6.18%	2.09%	1.17%	1.49%	2.42%	3.79%	2.17%	1.93%	8.09%

Table 10: Pre-holiday Firm Announcement Effect Controlling for Known Market Phenomena

This table tests whether the pre-holiday firm announcement effect persists after controlling for one of the following three variables. In Panel A, *Up* is a dummy variable which equals one if the aggregate market return is positive on the day of the announcement. In Panel B, *Sentiment* is beginning-of-month investor sentiment measure of Baker and Wurgler (2007). In Panel C, short interest ratio (*SIR*) is the total number of shares shorted divided by the number of shares outstanding, both measured in the prior month. In all regressions, the dependent variable is the one day abnormal return (*AR*) using the market model of the imputed announcement date. *Preholiday* is a dummy variable that equals one if the imputed firm announcement date is within two trading days of a holiday and includes the holiday itself if the market is open that day. Control variables and industry fixed effects are identical to specifications in Table 9. Standard errors are adjusted for clustering at the firm level for all corporate announcements and earnings announcements and at the industry level for share repurchase announcements, seasoned equity offering announcements, and acquisition announcements. All continuous independent variables are standardized to have zero mean and unit variance for ease of interpretation. *, **, and *** indicates 10%, 5%, and 1% level of significance respectively using a two-tailed test. Reported in parentheses are the *t*-statistics. Data are from January 1984 to December 2012.

Panel A: Controlling for Up Market

	All	All Favorable	Repurchases	Favorable Acquisitions	Positive Earnings Surprises	All Unfavorable	SEOs	Unfavorable Acquisitions	Negative Earnings Surprises	All Acquisitions	All Earnings
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Preholiday	0.16%**	0.17%**	0.76%**	0.31%**	0.14%*	0.26%**	0.37%**	0.48%	0.25%**	0.33%**	0.16%**
	(2.45)	(2.34)	(2.27)	(2.02)	(1.69)	(2.29)	(2.02)	(0.81)	(2.11)	(2.40)	(2.31)
Up	0.11%***	0.08%**	0.37%***	0.21%**	0.05%	0.20%***	0.41%***	0.10%	0.18%***	0.20%**	0.10%**
	(3.11)	(2.04)	(3.95)	(2.25)	(0.99)	(3.23)	(3.60)	(0.30)	(2.80)	(2.49)	(2.56)
	Control variables, industry fixed effects, and clustering as in Table 3										
N	180,047	127,523	8,009	13,163	106,351	54,452	4,021	1,675	48,756	14,838	153,179
R^2	0.66%	1.48%	6.60%	2.45%	1.32%	1.76%	2.92%	4.83%	2.06%	2.78%	8.06%

Panel B: Controlling for Investor Sentiment

	All (1)	All Favorable (2)	Repurchases (3)	Favorable Acquisitions (4)	Positive Earnings Surprises (5)	All Unfavorable (6)	SEOs (7)	Unfavorable Acquisitions (8)	Negative Earnings Surprises (9)	All Acquisitions (10)	All Earnings (11)
Preholiday	0.16%**	0.19%**	0.91%**	0.30%*	0.14%*	0.25%**	0.34%**	0.31%	0.26%**	0.30%**	0.17%**
	(2.44)	(2.40)	(2.53)	(1.82)	(1.66)	(2.17)	(1.98)	(0.50)	(2.07)	(2.21)	(2.32)
Sentiment	-0.08%**	-0.27%***	-0.07%	0.01%	-0.31%***	0.30%***	0.58%***	-0.68%*	0.29%***	-0.09%	-0.09%**
	(-2.21)	(-6.32)	(-0.50)	(0.07)	(-6.75)	(4.87)	(4.18)	(-1.81)	(4.34)	(-0.94)	(-2.48)
	Control variables, industry fixed effects, and clustering as in Table 3										
N	166,222	117,188	7,289	12,157	97,742	50,745	3,753	1,589	45,403	13,746	141,434
R^2	0.68%	1.52%	6.77%	2.40%	1.35%	1.71%	2.74%	4.90%	1.99%	2.85%	7.62%

Panel C: Controlling for Short Interest Ratio (SIR)

	All (1)	All Favorable (2)	Repurchases (3)	Favorable Acquisitions (4)	Positive Earnings Surprises (5)	All Unfavorable (6)	SEOs (7)	Unfavorable Acquisitions (8)	Negative Earnings Surprises (9)	All Acquisitions (10)	All Earnings (11)
Preholiday	0.15%**	0.19%**	0.79%**	0.24%	0.16%*	0.28%**	0.51%**	0.03%	0.27%**	0.22%*	0.16%**
	(2.16)	(2.33)	(2.08)	(1.44)	(1.78)	(2.18)	(2.53)	(0.05)	(2.03)	(1.83)	(2.23)
SIR	-0.11%***	0.07%*	-0.09%	-0.07%	0.10%**	-0.43%***	-0.50%**	0.18%	-0.41%***	-0.06%	-0.08%**
	(-3.29)	(1.79)	(-0.68)	(-0.84)	(2.41)	(-6.43)	(-2.09)	(0.69)	(-5.58)	(-0.81)	(-2.30)
	Control variables, industry fixed effects, and clustering as in Table 3										
N	157,508	113,731	7,086	11,856	94,789	45,494	3,459	1,465	40,570	13,321	133,642
R^2	0.67%	1.48%	6.82%	2.23%	1.34%	1.86%	3.27%	4.19%	2.18%	2.71%	8.22%

Table 11: Percentage of Pre-holiday Announcements

This table reports, by year, the percentage of trading days in a year that fall on a pre-holiday trading days, the excess percentage of corporate announcements made on preholiday trading day in a year, and a comparison between favorable and unfavorable announcement percentages. In Panel A, *Trading days* is the number of pre-holiday trading days in a year divided by the total number of trading days in a year. The remaining columns report the percentage of corporate announcements made on pre-holiday trading days minus *Trading Days*. The percentage of preholiday corporate announcements is the number of a particular type of corporate announcements on preholiday trading days each year divided by the total number of that type of corporate announcements each year. Favorable acquisitions include all announcements of private target acquisitions and cash acquisitions of public targets, whereas unfavorable acquisitions are comprised of announcements of acquisitions of public targets where the method of payment is not cash only. Positive earnings surprises are earnings announcements where the actual earnings met or exceeded the median analysts' forecast, while negative earnings surprises are earnings announcements where actual earnings did not meet the median analysts' forecast. All Favorable consist of announcements of repurchases, favorable acquisitions, and positive earnings surprises, whereas All Unfavorable consist of announcements of SEOs, unfavorable acquisitions, and negative earnings surprises. The bottom two rows of Panel A report the mean excess percentage of each corporate announcements across years. Panel B reports the mean annual percentage of favorable announcements on pre-holiday trading days in a year, the mean annual percentage of unfavorable announcements on pre-holiday trading days in a year, and the difference between the two means. *, **, and *** indicates 10%, 5%, and 1% level of significance respectively using a two-tailed two-sample test of differences in means. The *t*-statistics reported in parentheses are based on bootstrapped standard errors.

Panel A: Percentage of Pre-holiday Corporate Announcements minus Percentage of Pre-holiday Trading Days by Year

Year	Trading Days	All Favorable	Repurchases	Favorable Acquisitions	Positive Earnings Surprises	All Unfavorable	SEOs	Unfavorable Acquisitions	Negative Earnings Surprises	All Acquisitions	All Earnings
1984	11.07%	1.73%	-11.07%	-1.98%	2.05%	2.27%	2.82%	-11.07%	2.65%	-1.98%	2.41%
1985	10.71%	-2.37%	-7.14%	1.24%	-2.44%	-2.82%	2.87%	-1.62%	-3.26%	0.11%	-2.97%
1986	10.67%	-2.76%	-3.32%	5.47%	-4.02%	-2.39%	5.22%	6.98%	-3.41%	6.60%	-3.80%
1987	9.88%	-0.87%	3.87%	-2.40%	-1.59%	-2.07%	2.79%	-3.21%	-2.32%	-1.21%	-1.88%
1988	10.28%	-1.37%	7.44%	3.75%	-2.28%	-2.39%	-7.65%	6.00%	-2.52%	2.94%	-2.44%
1989	11.51%	-2.91%	0.85%	-0.50%	-3.53%	-2.56%	1.40%	0.74%	-2.79%	-2.66%	-3.19%
1990	11.07%	-1.82%	-3.05%	-0.35%	-1.73%	-2.05%	0.62%	1.05%	-2.22%	-2.08%	-2.02%
1991	10.67%	-3.08%	-2.87%	-3.80%	-3.02%	-3.14%	1.07%	2.66%	-3.74%	-1.91%	-3.37%
1992	10.24%	-1.21%	-1.80%	1.53%	-1.52%	-0.78%	7.44%	-6.53%	-1.54%	0.14%	-1.53%
1993	9.88%	-3.47%	-3.38%	-2.19%	-3.65%	-3.27%	0.51%	-0.08%	-3.84%	-0.56%	-3.76%
1994	11.51%	-3.04%	-1.43%	-0.97%	-3.50%	-2.03%	0.67%	3.75%	-2.38%	-1.15%	-3.09%
1995	11.51%	-2.55%	1.14%	-1.07%	-3.14%	-2.92%	-3.00%	-2.58%	-2.92%	-2.43%	-3.10%
1996	11.02%	-3.43%	-3.28%	-1.30%	-3.83%	-3.27%	1.34%	-6.71%	-3.67%	-1.44%	-3.79%
1997	10.67%	-3.33%	-0.67%	0.60%	-4.27%	-2.11%	-4.44%	0.71%	-1.97%	0.72%	-3.66%
1998	9.92%	-3.38%	-1.85%	-0.94%	-4.12%	-2.33%	4.28%	1.27%	-3.03%	-0.62%	-3.80%
1999	9.92%	-2.85%	-1.98%	-0.94%	-3.31%	-2.49%	-1.88%	-5.84%	-2.28%	-1.56%	-3.08%
2000	11.51%	0.31%	-0.05%	0.12%	0.37%	1.08%	2.85%	-0.03%	0.94%	-0.80%	0.44%
2001	11.29%	-2.76%	-1.62%	0.50%	-3.21%	-1.74%	-0.11%	-1.51%	-1.91%	0.02%	-2.82%
2002	10.71%	-2.26%	-3.50%	0.67%	-2.51%	-0.82%	1.86%	-1.62%	-1.19%	0.41%	-2.24%
2003	10.71%	0.45%	-1.04%	-2.21%	0.78%	4.07%	2.56%	-1.79%	4.56%	-1.73%	1.64%
2004	9.92%	-1.47%	-1.18%	-0.74%	-1.57%	0.00%	-2.90%	-1.41%	0.51%	-0.72%	-1.01%
2005	11.51%	-0.09%	-3.10%	-1.90%	0.34%	1.49%	-1.96%	1.70%	1.87%	-1.67%	0.79%
2006	11.55%	-2.83%	-1.20%	-3.40%	-2.85%	-1.15%	-3.31%	-0.13%	-0.96%	-3.15%	-2.37%
2007	11.16%	-0.94%	-1.61%	-0.40%	-0.95%	-0.06%	-3.36%	-0.63%	0.22%	-1.65%	-0.66%
2008	11.07%	1.64%	-0.26%	-0.89%	2.17%	3.34%	-1.66%	-4.25%	3.74%	-0.97%	2.63%
2009	9.92%	1.24%	1.55%	0.48%	1.28%	0.18%	-1.91%	4.79%	0.38%	-0.10%	1.10%
2010	9.92%	1.79%	0.38%	1.23%	1.93%	2.03%	-2.32%	-3.36%	2.97%	0.14%	2.10%
2011	11.51%	3.54%	2.62%	-1.30%	4.17%	3.25%	-2.31%	-1.98%	3.91%	-1.85%	4.11%
2012	11.20%	0.30%	0.86%	2.53%	0.01%	-0.40%	-0.67%	5.13%	-0.52%	2.22%	-0.15%
Means	10.78%	-1.30%***	-1.26%**	-0.32%	-1.52%***	-0.80%**	0.03%	-0.68%	-0.85%*	-0.58%*	-1.36%***
		(-3.64)	(-2.13)	(-0.86)	(-3.60)	(-1.97)	(0.05)	(-0.89)	(-1.82)	(-1.67)	(-3.19)

Panel B: Comparison of Unfavorable and Favorable Announcement Percentages

Unfavorable	Favorable	Difference	t-statistic
All Unfavorable	*All Favorable*		
9.98%	9.47%	0.51%***	(2.71)
SEOs	*Repurchases*		
10.80%	9.51%	1.29%	(1.29)
Unfavorable Acquisitions	*Favorable Acquisitions*		
10.10%	10.46%	-0.36%	(-0.53)
Negative Earnings Surprises	*Positive Earnings Surprises*		
9.92%	9.26%	0.66%***	(3.23)

Table 12: Gallup Daily U.S. Mood Values on Corporate Announcement Days

This table shows, where for the corporate announcements sample intersects with the Gallup Daily U.S. Mood data, the mean and abnormal values of the Gallup measures of *Happy*, *Worry*, and *Happy – Worry* as well as the announcement day abnormal return (*AR*). These mean values are divided into *Ordinary days* and *Preholidays*. An observation is classified as "*Ordinary day*" if the imputed firm announcement date does not fall within two trading days prior to a holiday. An observation is classified as "*Preholiday*" if the imputed firm announcement date is within two trading days prior to holidays and includes the holiday itself if the market is open that day. *Happy* refers to the daily percentage of Americans who, reflecting on the day before they were surveyed, reported that they experienced a lot of happiness and enjoyment without a lot of stress and worry. *Worry* refers to the daily percentage of Americans who, reflecting on the day before they were surveyed, say that they experienced worry and stress without a lot of happiness and enjoyment. In Panel B, *Abnormal Happy*, *Abnormal Worry*, and *Abnormal (Happy – Worry)* are calculated as the Gallup value minus the value on the same day of the prior week in order to control for the predictable day of the week effect. *Happy* and *Worry* are from the Gallup Daily U.S. Mood data based on the Gallup-Healthways Well-Being Index. Daily Gallup data are based on telephone interviews with approximately 500 adults. Abnormal return is the one day abnormal return of the imputed announcement date using the market model. *, **, and *** indicates 10%, 5%, and 1% level of significance respectively using a two-tailed two-sample test of differences in means. The *t*-statistics reported in parentheses are based on bootstrapped standard errors. Data are from January 2008 to November 2012.

	N	Happy	Worry	Happy - Worry	Abnormal Happy	Abnormal Worry	Abnormal (Happy - Worry)	Abnormal Return
All								
Ordinary days	33,851	47.00	11.35	35.64	-0.30	0.05	-0.35	0.49%
Preholidays	4,732	50.11	9.89	40.22	1.26	-0.43	1.70	1.06%
Difference		3.12***	-1.46***	4.58***	1.56***	-0.49***	2.05***	0.57%***
		(37.47)	(-48.32)	(42.16)	(23.22)	(-14.70)	(21.67)	(4.13)
All Favorable								
Ordinary days	25,647	47.03	11.34	35.70	-0.30	0.05	-0.35	1.84%
Preholidays	3,580	50.25	9.87	40.39	1.34	-0.42	1.75	2.36%
Difference		3.22***	-1.47***	4.69***	1.64***	-0.46***	2.10***	0.51%***
		(33.52)	(-41.86)	(36.27)	(20.10)	(-11.40)	(18.98)	(3.48)
Repurchases								
Ordinary days	1,673	47.04	11.35	35.69	-0.29	0.12	-0.41	1.83%
Preholidays	220	50.87	9.56	41.30	1.92	-0.72	2.64	2.83%
Difference		3.83***	-1.78***	5.61***	2.21***	-0.84***	3.05***	1.01%**
		(9.21)	(-12.45)	(10.57)	(5.89)	(-5.38)	(6.05)	(2.09)
Favorable Acquisitions								
Ordinary days	2,208	46.31	11.58	34.73	-0.45	0.11	-0.57	0.50%
Preholidays	222	52.11	9.33	42.78	3.17	-1.10	4.27	0.82%
Difference		5.80***	-2.26***	8.05***	3.62***	-1.22***	4.84***	0.32%
		(12.43)	(-14.10)	(12.97)	(7.70)	(-7.03)	(8.05)	(0.81)
Positive Earnings Surprises								
Ordinary days	21,766	47.11	11.31	35.79	-0.29	0.03	-0.32	1.98%
Preholidays	3,138	50.08	9.93	40.15	1.17	-0.35	1.51	2.43%
Difference		2.97***	-1.39***	4.36***	1.46***	-0.38***	1.84***	0.45%***
		(28.66)	(-37.75)	(32.97)	(17.48)	(-9.06)	(16.07)	(2.64)

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	N	Happy	Worry	Happy - Worry	Abnormal Happy	Abnormal Worry	Abnormal (Happy - Worry)	Abnormal Return
All Unfavorable								
Ordinary days	8,204	46.87	11.39	35.48	-0.29	0.07	-0.36	-3.75%
Preholidays	1,152	49.67	9.96	39.72	1.03	-0.48	1.51	-2.97%
Difference		2.80***	-1.43***	4.24***	1.32***	-0.55***	1.87***	0.79%***
		(17.13)	(-22.47)	(20.05)	(10.27)	(-8.61)	(11.29)	(2.85)
SEOs								
Ordinary days	810	46.41	11.60	34.81	-0.20	0.05	-0.25	-5.24%
Preholidays	67	49.82	10.52	39.30	1.34	-0.25	1.60	-5.83%
Difference		3.41***	-1.08***	4.48***	1.54***	-0.30	1.84**	-0.59%
		(4.49)	(-4.05)	(4.65)	(2.69)	(-1.13)	(2.42)	(-0.53)
Unfavorable Acquisitions								
Ordinary days	221	45.87	11.74	34.13	-0.06	0.05	-0.11	-0.51%
Preholidays	23	50.74	10.30	40.43	2.52	-0.74	3.26	0.42%
Difference		4.87***	-1.44***	6.31***	2.58*	-0.79	3.37*	0.93%
		(3.27)	(-2.58)	(3.19)	(1.90)	(-1.14)	(1.66)	(0.62)
Negative Earnings Surprises								
Ordinary days	7,173	46.96	11.36	35.60	-0.31	0.07	-0.38	-3.69%
Preholidays	1,062	49.64	9.92	39.73	0.98	-0.49	1.47	-2.86%
Difference		2.69***	-1.44***	4.13***	1.29***	-0.56***	1.85***	0.83%***
		(15.94)	(-22.28)	(18.25)	(10.23)	(-8.70)	(10.25)	(2.87)
All Acquisitions								
Ordinary days	2,429	46.27	11.60	34.67	-0.42	0.11	-0.53	0.41%
Preholidays	245	51.98	9.42	42.56	3.11	-1.07	4.18	0.78%
Difference		5.71***	-2.18***	7.89***	3.53***	-1.18***	4.71***	0.37%
		(12.64)	(-13.38)	(13.84)	(7.65)	(-6.87)	(7.77)	(0.98)
All Earnings								
Ordinary days	28,939	47.07	11.32	35.75	-0.29	0.04	-0.34	0.58%
Preholidays	4,200	49.97	9.92	40.05	1.12	-0.38	1.50	1.09%
Difference		2.90***	-1.40***	4.30***	1.41***	-0.43***	1.84***	0.52%***
		(33.25)	(-42.57)	(38.92)	(21.25)	(-11.85)	(19.26)	(3.43)

Table 13: The Pre-holiday Effect, the Pre-holiday Firm Announcement Effect, and Subsample Analysis

This table tests for the persistence of the aggregate preholiday effect and pre-holiday firm announcement effect across time. The preholiday effect refers to the phenomenon whereby the aggregate market outperforms on pre-holiday trading days relative to other trading days. In Panel A, the dependent variable is the CRSP value-weighted index return. *Preholiday* is a dummy variable that equals one if the day is within two trading days before a holiday and includes the holiday itself if the market is open that day for 13 major holidays. *Preholiday (Ariel)* is a dummy variable that is defined similarly to *Preholiday* but based on eight holidays used by Ariel (1990). We also divide the sample into before the publication of Ariel's paper (1984-1989) and we subdivide the remaining later years into roughly two decades (1990-2000 and 2001-2012) to examine the persistence of the preholiday effect over time. In Panel B, we examine the persistence of the preholiday firm announcement effect across time. The sample consists of all corporate announcements from 1984-2012. In all regressions, the dependent variable is the one day abnormal return (*AR*) using the market model of the imputed announcement date. Standard errors are adjusted for clustering at the firm level in Panel B. *, **, and *** indicates 10%, 5%, and 1% level of significance respectively using a two-tailed test. Reported in parentheses are the *t*-statistics.

Panel A: The Preholiday Effect across Time

	1984-2012		1984-1989		1990-2000		2001-2012	
Preholiday	0.11%***		0.16%**		0.11%*		0.10%	
	(2.68)		(1.99)		(1.89)		(1.24)	
Preholiday (Ariel)		0.08%		0.11%		0.01%		0.13%
		(1.45)		(1.04)		(0.08)		(1.30)
N	7,313	7,313	1,516	1,516	2,780	2,780	3,017	3,017
R^2	0.10%	0.03%	0.26%	0.07%	0.13%	0.00%	0.05%	0.06%

Panel B: The Preholiday Firm Announcement Effect across Time

	1984-2012	1984-1989	1990-2000	2001-2012
Preholiday	0.16%**	0.27%**	0.07%	0.19%**
	(2.55)	(2.07)	(0.67)	(2.13)
	Control variables, industry fixed effects, and clustering as in Table 9			
N	180,047	15,774	75,889	88,384
R^2	0.65%	1.07%	0.77%	0.68%

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BIOGRAPHICAL SKETCH

Kelley Bergsma was born on February 22, 1987 in Houston, Texas. A few weeks later, her family moved to the suburbs of Philadelphia, Pennsylvania where she lived for the next 24 years. At a young age, she excelled in academics, especially in mathematics. At Conestoga High School, one of the top high schools in the nation, Kelley won the Harvard Book Award and was named a National Merit Scholar. She earned her B.S. degrees in Business Administration (Finance) and Economics as well as her M.S. in Finance at Villanova University. At Villanova, she was named the 2008 William G. McGowan Scholar, earned the Medallion for Excellence in Finance at the Master's Level, and won the 2010 Frank W. Taussig Award for her senior thesis in economics. Her thesis, "Does Microsavings Make Sense for Microfinance Institutions?" was published in *The American Economist* in 2011; at the same time, she entered the doctoral program in Finance at the Florida State University. While a Ph.D. student, Kelley participated in the 2013 Yale Summer School in Behavioral Finance and presented her work at the 2015 MFA Annual Meeting, 2014 Florida Finance Conference, 2014 FMA European Doctoral Consortium, the FMA 2013 Annual Meeting, and the 2012 ABF&E Annual Meeting. She also received the 2014 AFA Student Travel Grant and the 2014 College of Business Doctoral Teaching Award. Kelley is excited to be starting as an Assistant Professor at Ohio University in Athens, Ohio in August 2015.